Who Runs the AEA?⁺

KEVIN D. HOOVER AND ANDREJ SVORENČÍK^{*}

The leadership structure of the American Economic Association is documented using a biographical database covering every officer and losing candidate for AEA offices from 1950 to 2019. The analysis focuses on institutional affiliations by education and employment. The structure is strongly hierarchical. A few institutions dominate the leadership, and their dominance has become markedly stronger over time. Broadly two types of explanations are explored: that institutional dominance is based on academic merit or that it is based on self-perpetuating privilege. Network effects that might explain the dynamic of increasing concentration are also investigated. (JEL A11, B29, B30, Z13)

1. Unpacking the Pecking Order

****** Conomics is very elitist." So runs a comment from a member of the American Economic Association (AEA) in response to a survey in the "AEA Professional Climate Survey: Final Report" (AEA 2019, p. 30). Fourcade, Ollion, and Algan (2015) had already noted the strong sense of elitism vis-à-vis other social sciences:

[t]here exists an implicit pecking order among the social sciences, and it seems to be dominated by economists. For starters, economists *see themselves* at or near the top of the disciplinary hierarchy (p. 89).

*Hoover: Department of Economics and Department of Philosophy, Duke University. Svorenčík: Department of Economics, University of Pennsylvania. The idea for this paper with some preliminary results was presented at the "Workshop on Methodology, Systemic Risk, and the Economics Profession," at the Washington Duke Inn, Durham, North Carolina, December 9–10, 2011. The long gap between that initial presentation and the current version is, in part, the time needed to build a richer data set for a larger project and, in part, for reasons of no intellectual importance. Versions of the But the climate survey points inward not outward. The report notes

frequent reference[s] to the elitism within the field. There is a strong sense that the AEA, the NBER [National Bureau of Economic Research], and the top journals — and de facto the profession — are controlled by economists from the top institutions (AEA 2019, p. 29).

The report reveals that the feeling that the AEA leadership is insular and disconnected from the membership is a widely held view, but it is mainly impressionistic. Our goal is to go beyond impressions and to carefully document and analyze the hierarchical structure

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of the leadership of the AEA and how it has changed over time.

The AEA began in 1885 as one of many learned societies founded toward the end of the nineteenth century in a process that was more "the academicization of nineteenth century economics rather than its professionalization" (Coats 1985, p. 1699).¹ The distinguished historian of the AEA, A.W. Coats, noted that charges that the AEA was controlled by a limited orthodox group go back to the 1890s (1985, p. 1721). Coats continues, "[w]hether this is simply an unavoidable-and some would say healthy-state of affairs is far too delicate and complex a matter to be examined [in his article in the AEA's own flagship journal, the American Economic Review]" (1985, p. 1721). Coats was, in general, reluctant to takes sides in such a dispute. Later, he noted the continued tension:

[The AEA] has always been an "open" society, with no significant membership restrictions, partly because of the *objections to control by a limited elite or coterie*. Consequently it has not had, nor has it attempted to have, any direct influence on doctrinal developments in the field. Nevertheless, there have been periodic protests about the organization's *unrepresentativeness and oligarchical management*, a state of affairs reflecting the size, diversity, and geographical dispersion of its membership. . . (Coats 1987, emphasis added).

The question of whether an academic, professional society should be managed principally by, and in the interest of, its wider membership or by a narrower intellectual elite is an important matter of policy for the AEA. However, like Coats, we shall not attempt to address it directly. Any answer to the question, however, ought to be informed by a detailed understanding of the history and current situation of the governance of the AEA. Our purpose in this paper is to begin to give that detailed account—to make explicit the implicit hierarchy of the AEA. Part of a more ambitious prosopographical study of the economics profession that makes only limited use of the data that we have collected, we mainly aim at establishing certain facts about the hierarchy.²

We confirm the widespread belief that the AEA possesses an extremely hierarchical structure, and we document—as has hitherto not been done—the detailed shape of that hierarchy. Beyond mere documentation, however, we offer some evidence on the dynamics of the leadership. Our data provide strong evidence that the leadership of the AEA forms a network based on preferential attachment, a mechanism in which certain institutions become increasingly dominant over time.

There has been little research on the composition of elected leadership of academic organizations in terms of the institutions in which they were educated or employed.³

¹Richard Ely, one of the founders and early Presidents (1900–01) of the AEA and the eponym of its prestigious annual Ely Lecture, recounts the founding of the association as inspired by the German *Verein für Sozialpolitik* (Ely 1910, pp. 70–71; Ely 1936). That society similarly acted as an agent of professionalization of economics in Germany (Backhaus 1993–94), and faced similar—if substantially more heated—debates over the nature of the profession and of economics itself in the periods before and after World War I (Glaeser 2014, Janssen 2009). Thanks to Stefan Kolev for pointing out the historical connection and the relevant literature.

²Prosopography is a historiographical method that identifies and studies groups of people, whose individual biographies may not be accessible, based on data about common characteristics in specific historical contexts. See Svorenčík (2018). Svorenčík (2019) provides an introduction to prosopography as a historiographical tool. Stigler (1976) is perhaps the first economist to mention prosopography.

³Far more research has been devoted to the question of representation of women and minorities. For instance, during the first 65 years of the American Sociological Society only one Black and one female sociologist were elected President (Sewell 1992). Since the 1970s the share of women has significantly increased and by the 1990s women became overrepresented as candidates and winners in leadership elections (Rosenfeld, Cunningham, and Schmidt 1997).

Simpson and Simpson (1994) analyzed the American Sociological Association (ASA) and observed that "it is no longer the scholarly society dominated by a disciplinary elite that is was in the 1950s, when it had its first major growth spurt" (p. 275). The share of ASA officers employed at top-ten sociology departments declined more than 50 percent from the late 1950s to the early 1990s (p. 273).

Fourcade, Ollion, and Algan (2015) compared the AEA, the ASA, and the American Political Science Association (APSA) and concluded for the period 2010-14 that "72 percent of the AEA nonappointed council members are from the top five departments, in contrast with only 12 and 20 percent respectively for APSA and ASA" (p. 100). Their explanation for the contrast was the lack of a unitary disciplinary core and substantial intellectual fragmentation of political science and sociology in comparison to economics, with the result that "the rank-and-file is less bound to the elite and both [the ASA and the APSA] fulfill primarily a democratic purpose of integration across the board, an openness that is also reflected in the structuring of their conference programs" (p. 101).⁴

The basis for the preference that drives the dynamic of network formation is more difficult to identify conclusively. There are at least two competing hypotheses to consider; namely, that the preference is based on merit (that is, on perceived personal academic achievement or some other desirable personal qualities or abilities) or in privilege (that is, in an association to particular favored institutions over and beyond personal merit. These two hypotheses are difficult to disentangle, and the evidence that we present is, at best, suggestive and helps to set an agenda for future investigation more than to decide the matter.

In the spirit of Coats, we do not take a normative position on the issue of democracy versus elitism, but try to lay out some positive evidence that might usefully inform normative questions. Our evidence also has broader ramifications for the ongoing debates about the state of our discipline and its incentive structure (Akerlof 2020, Heckman and Moktan 2020). The positive questions that we address include: What is the educational and employment background of the AEA's leadership? Does the hierarchical structure of economics translate into the structure of the AEA's leadership? In particular what is the role of leading economics departments? Can we detect any networks within the leadership? What is their structure and how have they changed over time? Are such networks grounded in self-reinforcing clubs or do they reflect the relative status of AEA leaders as scholars and researchers?

2. How Is the AEA Organized?

The AEA is the principal professional organization for economists in the United States. As figure 1 shows, it has a large membership, which grew from 572 members in 1893 (as far back as our data go) to a peak one hundred years later in 1993 at 22,005. Subsequently, membership suffered a large decline to a local minimum of 16,902 in 2011, only to recover sharply to 21,031 by 2018.⁵

⁴In the early 2000s political science witnessed a so-called perestroika movement that criticized the dominance of rational choice and quantitative approaches in political science and alleged that the APSA is dominated and controlled by a coterie of academics promoting such approaches (Monroe 2005, Jacobsen 2017). An official APSA report on APSA election procedures investigated the composition of the APSA leadership for the 1996–2002 period and did not find evidence for APSA's leadership not representing the membership along various demographic and intellectual categories (APSA 2002). However, unlike our analysis of the AEA, the report did not address the institutions at which candidates were educated or employed as we do in this paper.

 $^{^{5}}$ We speculate that these large fluctuations may have been caused by the interaction of the membership price



Figure 1. AEA Membership and Voting

Sources: American Economic Association, Siegfried (1998, 2002).

Beyond its own membership, the AEA uses the umbrella title of the Allied Social Science Associations (ASSA) to organize and administer not only its own Annual Meeting, but the meetings of a large number of professional societies and organizations related to economics, such as the Econometric

Society, the American Finance Association, the Agricultural and Applied Economics Association, the History of Economics Society, the International Network for Economic Methodology, the Economic Science Association, and many others-53 organizations altogether (Siegfried 2008). The AEA/ASSA meeting is currently held in early January, but was previously held between Christmas and New Year's Day and other times. The meetings feature sessions for the presentation of papers, roundtable discussions, and lectures, as well as receptions for different groups and celebratory luncheons to honor members' achievements. The association runs its annual job fair at these meetings, and local hotels are filled with representatives of university economics departments and other employers holding

and the availability of AEA journals in electronic formats through university libraries. The price of membership was quite high, though it was justified in part by the fact that it came with subscriptions to the principal AEA journals. The decline in membership became quite steep after 1997, falling by 14 percent between 1997 and 2001. Once these journals became readily available online (starting in 2001), many members canceled their memberships, with the fall continuing another 10 percent until 2011. Electronic voting was introduced in 2011. The AEA lowered the cost of memberships sharply in 2012 (a fall of 59 percent for the highest level and of 43 percent for the lowest level), and membership recovered.

initial job interviews, mainly with newly or soon-to-be minted economics PhDs. The association publishes seven highly regarded journals.⁶

The AEA maintains a website and engages in a variety of other activities, such as awarding honors (Distinguished Fellowships and the John Bates Clark Medal, for the most significant contributions to economic thought and knowledge by an economist under the age of forty), and promoting the interests of the economic profession (Cherrier and Svorenčík 2020). The main policy-making body is the Executive Committee, which oversees a number of standing committees, as well as various ad hoc committees (see appendix table A.1).

The Executive Committee is headed by the President and the voting members include the President-elect, Vice Presidents, elected representatives of the membership (henceforth ordinary members of the Executive Committee), an appointed Secretary and appointed Treasurer, and various voting and nonvoting ex officio members, including the two most recent past Presidents and the Editors of the association's journals.

While the President is the AEA's chief executive officer, the President-elect is responsible for the program of the annual meeting and for appointing the Program Committee and the Nominating Committee for the year that he or she holds that office.

The Nominating Committee is so vital to determining the shape of the AEA that we refer to the Executive Committee together with the Nominating Committee (excluding nonvoting members) as the extended leadership of the association. Table 1 describes the nomination and election process. The Nominating Committee presents at least two possible candidates for President-elect and each of the other offices open to election in any year. The extended leadership, acting as an electoral college, selects the final slate of candidates. While the Vice Presidents and ordinary members face contested elections, only a single nomination is normally made for the President-elect. The senior elected officers serve one-year terms, while elected members of the Executive Committee serve three-year terms, staggered so that two members are elected each year. As the name implies, after a one-year term, the President-elect becomes the President for the next year. The AEA's bylaws stipulate that the Chair of the Nominating Committee be a past officer. And while it is not required, it has nonetheless become common practice that the chair be a past President.⁷

Members may directly nominate candidates by petition—six percent of the

⁶The American Economic Review (AER), which commenced publication in 1911, is its flagship journal. The Journal of Economic Literature (JEL), which to some extent is the successor to, and development of, the earlier Journal of Economic Abstracts (1963-69), is devoted mainly to book reviews, review essays, and survey articles. The *JEL* also developed the classification system for the economics discipline (the "JEL Codes") that are widely used to catalog articles (Cherrier 2017). The Journal of Economic Perspectives was introduced in 1987 to publish articles aimed at a broad audience, mitigating the widely expressed problem that the AER had become too technical. In 2009, the association introduced four journals under the master title American Economic Journal and the subtitles Applied Economics, Economic Policy, Macroeconomics, and Microeconomics. These aimed to expand the capacity of AEA journals to publish professional articles by opening up a tier below the AER. In addition to the seven established journals, the AEA has recently created two new journals. Originally published as an issue of the American Economic Review, the AEA Papers and Proceedings was spun off in 2018 to form an annual that publishes selected papers from the society's annual meeting, as well as official reports of the society's various officers and committees. Finally, in 2019 the AEA began publishing another new journal, American Economic Review: Insights, as a home for more succinct articles.

⁷Out of 70 Presidents in our sample, 3 served twice as Chairs of the Nominating Committee, 55 once, and 12 never served; of 70 chairs, 61 served as Presidents. The average lag between the two positions is three years. Only twice was the Chair of the Nominating Committee occupied by someone who only later on was elected President (in 1950 and 1958).

TABLE 1 The Nomination and Election Process

• PRESIDENT-ELECT

• Duties

Appoints Nominating Committee

• Nominating Committee

• Composition

- Chair must be a past officer
- At least five AEA members
- By petition, anyone with the support of 2 percent of the membership
- Duties
 - Presents at least two names for each open elective office

• Electoral College

• Composition

- Nominating Committee
- Executive Committee
- Voting strength of Nominating Committee cannot exceed that of Executive Committee

• Duties

- Chooses a slate of nominees:
 - President-elect (one nomination)
 - · Vice President (four nominations for two positions)
 - Ordinary members of the Executive Committee (four nominations for two positions)

• DIRECT NOMINATION

- Additional nominations may be made by petition of the membership.
 - Petition thresholds:
 - President-elect: 6 percent of membership
 - All other offices: 4 percent of membership
- VOTING
 - Open to all members

Source: Bylaws of the American Economic Association (AEA): https://www.aeaweb.org/about-aea/bylaws (accessed on December 4, 2019).

membership for President-elect and 4 percent for other offices. In 2018, these would have corresponded to signatures from 1,261 members for President-elect and 841 for other offices. No candidate has been directly nominated by petition in the history of the AEA.

The officers are chosen from those nominated by a vote of the membership—currently online, although previously by mail—in which all members of the association are eligible to vote. Figure 1 shows the total ballots returned, both in absolute number, and as percentage of the membership. The earliest year for which we have data (1938), also corresponds to the highest participation rate of the membership in the AEA: 52 percent. The trend from that point is downward, until it reaches its nadir in 1997 at a little less than 15 percent. With the advent of online voting, the participation rate rose sharply between 2010 and 2018, by more than 25 percentage points to a level of 43 percent—the highest rate of participation since 1948.

Two features of the election process limit transparency. First, until 2020 (i.e., after our sample period) when the AEA added short statements of purpose from the candidates, the only information about the candidates even for competitively elected offices-were condensed curricula vitae, but nothing that indicated the candidates' views on issues facing the AEA. One respondent to the AEA's Climate Survey complained about the practice: "a thing I've found super odd . . . is when there are elections for AEA officers, the information on the candidates is basically just publications. I want to know what the candidates want to do, not that they came from Harvard, work at Berkeley, and were lucky enough to get 3 AERs" (AEA 2019, p. 31). Second, only the total votes cast and identities of the winners and losers are reported to the wider membershiprequests from members to have the actual tallies reported having been denied by the Executive Committee.⁸ The last available data on election participation rate is from the 2018 election when it reached the level of 43.6 percent.

⁸One such request is contained in a letter from Kevin Hoover to John Siegfried, dated December 15, 2005. In an exchange of emails, the then Secretary-Treasurer of the AEA confirmed that, while the AEA office keeps the records of the actual votes, they are not disclosed (Siegfried to Hoover, December 14, 2005). Noting that the practice predated his time in office, Siegfried suggested that "[t]he ballot count is not reported, perhaps in order to avoid hurting the feelings of the person who comes in last" (Siegfried to Hoover, December 9, 2005). Incredulous, Hoover replied "[e]ven my high school, where I personally suffered the agony of defeat in a student government election, reported the vote" (Hoover to Siegfried, December 9, 2005). In the event, the executive denied Hoover's request that the individual votes be made public. In a recent exchange of emails, Peter L. Rousseau, the AEA's current Secretary-Treasurer, confirmed that the policy is still in place and that "the main argument for" this antidemocratic practice of "not reporting vote totals" remains "that it will discourage many fine candidates from standing for election" (Rousseau to Hoover, September 19, 2019).

3. The Prosopographical Dataset and Key Analytical Categories

The current paper is based on an extensive prosopographical database covering the entire leadership of the AEA over the 1950–2019 period, including all Presidents, Presidents-elect, Vice Presidents, ordinary members of the Executive Committee, as well as the losing candidates for all elective offices, and members of the Nominating Committee.

We define the *electoral pool* to be the extended leadership (= Executive Committee plus Nominating Committee) plus the losing candidates, less the Presidents-elect and Past Presidents who are members of the Executive Committee. To keep our nomenclature and analytical categories clear, they are defined in table 2. The exclusions avoid double counting, since, once a member becomes President-elect, transition to President and past President is automatic.⁹ The electoral pool over the 1950–2019 period consists of 1,122 positions (= 842 winners in AEA elections or appointees of the extended leadership plus 280 losing candidates). These positions were, in fact, filled by 575 individuals—that is, on average each individual filled about 1.95 positions in the electoral pool.

The information about these 575 individuals was compiled from a variety of sources, including AEA Executive Committee minutes, AEA members' directories, which were published (typically, quinquennially) for much of the AEA's history, various editions of

⁹One might have thought that we should count Presidents-elect rather than Presidents to avoid double counting, since Presidents-elect are the ones who actually face the vote; but it is more useful to count Presidents, since the office of President-elect was created only in 1957. Only one President-elect, Jacob Marschak, died in office and thus did not become President and Past President. Marschak was replaced by Tjalling C. Koopmans as President-elect. Harold A. Innis, President in 1952, died in office on November 8, 1952—near the end of his term.

TABLE 2 Definitions and Analytical Categories

- *Leadership* = Executive Committee, exclusive of nonvoting members (= President, President-elect, two past Presidents, Vice Presidents, ordinary members of the Executive Committee)
- Extended leadership = Leadership plus Nominating Committee
- *Electoral pool* = extended leadership plus losing candidates for Vice-President and ordinary member of the Executive Committee, excluding Presidents-elect and past Presidents who are members of the Executive Committee
- *Education* refers to counting members of the Electoral Pool according to the university where they received their highest academic degree
- *Employment* refers to counting members according to their place of employment at the time of their nomination or appointment of the electoral pool

Analytical Categories by <i>Education</i> (<i>in rank order</i>)	Analytical Categories by <i>Employment</i> (in rank order)
First Tier = top five institutions: 1. Harvard 2. Massachusetts Institute of Technology (MIT) 3. Chicago 4. Columbia 5. Stanford	<i>First Tier</i> = top five institutions: 1. Harvard 2. Stanford 3. Chicago 4. MIT 5. Princeton
 Second Tier = next ranked institutions with greater than 20 positions: 6. Princeton 7. Yale 8. University of California, Berkeley (UC Berkeley) 9. Wisconsin 10. London School of Economics (LSE) 11. Oxford 12. Michigan 13. Pennsylvania 14. Minnesota 	 Second Tier = next ranked institutions with greater than 20 positions: 6. UC Berkeley 7. Yale 8. University of California, Los Angeles (UCLA) 9. Columbia 10. Northwestern 11. Pennsylvania 12. Minnesota 13. Duke 14. Maryland 15. Michigan
Third Tier = institutions ranked 15–65 (see appendix table A.2)	Third Tier = institutions ranked 16–135 (see appendix table A.2)

(Continued)

Blaug's *Who's Who in Economics*, and online resources, such as curricula vitae and obituaries. Although the collection process was labor intensive, involving multiple research assistants over several years, we were, for the most part, able to reconstruct complete education and job histories—at least for the AEA leadership—and to collect a variety of other facts pertinent to their careers. In a small number of cases, some information is missing, and when the accuracy of data was doubtful, individuals are omitted at affected points of the analysis.

In the research presented here, we rely on only a part of the dataset: for each office comprised by the electoral pool, our principal data link information about the university at which an AEA leader or losing candidate received his or her highest academic degree (typically doctorates) and his or her places of employment (academic or nonacademic) at the time of appointment or of standing

 TABLE 2

 Definitions and Analytical Categories (Continued)

Combined Analytical Categories (for combined categories ranks = <i>Education</i> rank/ <i>Employment</i> rank) <i>Top 6 (First Tier)</i> = all institutions that fall into the First Tier (top 5) of either <i>Education</i> or <i>Employment</i> : 1/1. Harvard 2/4. MIT 3/3. Chicago 3/4. Stanford 6/5. Princeton 4/9. Columbia
Second Tier: Common 5 = all institutions that appear in the Second Tier of both Education and Employment next ranked institutions with: 7/7. Yale 8/6. Berkeley 12/15. Michigan 13/11. Pennsylvania 14/12. Minnesota
 Other Second Tier: Employment = institutions appearing only in the Second Tier of Employment: 12. UCLA 13. Northwestern 14. Duke 15. Maryland
 Other Second Tier: Education = institutions appearing only in the Second Tier of Education: 12. Wisconsin 13. Oxford 14. LSE
Third Tier = all other institutions (ranked 15–65/16–135)

for election (win or lose). We refer to these variables as *Education* and *Employment* and, for clarity, consistently write them in italics to underline their particular meaning in this context.¹⁰

With very few exceptions, leadership of the AEA consists of economists who hold doctoral degrees and are tenured at a university or college. In 1950, approximately 200 PhDs in economics were awarded in the United

States. By 2018, the number had risen to about 1,100. The number of PhD-granting institutions, based on the National Science Foundation's Survey of Earned Doctorates (2019), has also risen from 57 in 1950 to 141 in 2016 (appendix, figures A.1 and A.2, National Center for Education Statistics 2018 provide more detailed data). There is clearly a pecking order among economics departments as suppliers of economists and among these departments and a wider group of institutions (including governments, international agencies, private businesses, and nonprofit organizations) as demanders or employers of economists (see Eagly 1974; Fourcade 2009; Fourcade, Ollion, and

¹⁰Complete employment information is missing for four individuals for times of holding all their positions in the electoral pool. For two further individuals employment information is available for some positions but not for their periods as members of the Nominating Committee.

Algan 2015). In addition to a hierarchical structure of American academic economics, there is also a striking concentration of doctoral origins of economics faculty. Pieper and Willis (1999) were first to observe that top 10 schools accounted for the doctoral origin of 47 percent of all economics faculty at US PhD-granting institutions in the early 1990s and the top 20 accounted for 66.1 percent. Furthermore, this faculty with a doctoral degree from these top 10 schools played a pivotal role in training the next generation of economists: they supervised 54 percent of doctoral students entering the job market in 1992–93. The concentration of doctoral origins was replicated by Klein (2005) on a sample of schools from the early 2000s and by Colander (2015) on an even smaller sample from the mid-2010s. Svorenčík and Pieper (2021) replicated earlier results for all PhDgranting institutions for 2018 and observed that the discipline has not changed since the 1990s.

4. The Chosen

We begin by documenting the increasing dominance of a few universities in the leadership of the AEA.¹¹

4.1. Aggregate Diversity

4.1.1 Aggregate Diversity by Office

Consider the electoral pool of the AEA over our period 1950–2019. Our focus is less on the actual holders of the various offices per se than on the people who have made the first cut and are either appointed or allowed to stand for contested elections.

Looked at from the point of view of *Education*, the members of the electoral pool

¹¹An earlier, working paper version of this article contains considerably more fine-grained analysis of the data (Hoover and Svorenčík 2020; downloadable from https:// papers.ssrn.com/sol3/papers.cfm?abstract_id=3741439). graduated (in terms of their highest degree earned) from 65 different universities (see table 3). ¹² Looked at from the point of view of *Employment* at the time of appointment or contesting the election, the electoral pool is more than twice as diverse, with 135 different employers represented. (A complete list of institutions in the electoral pool and the numbers of individuals from each classified by *Education* and *Employment* for the whole dataset is reported in the appendix, table A.2.)

The degree of institutional diversity differs for the various positions in the electoral pool, with the Chair of the Nominating Committee and President displaying the lowest variety of institutional affiliations for both Education and Employment and members of the Nominating Committee displaying the most (table 3). The rank orders by variety of institutional affiliations are similar for both Education and Employment. The largest difference is losing ordinary members of the Executive Committee, which is ranked fourth (low to high) by *Education* and sixth by *Employment*. On either metric, the positions with increasing variety are mainly also filled with younger economists, as measured by years from highest degree to appointment or election (see section 6.2.1).

Office by office, with the exception of the Chairs of the Nominating Committee and losing ordinary members of the Executive Committee, for which the results are mixed, table 3 shows that institutional diversity decreased between the first and second halves of the sample, whether judged by *Education* or *Employment*. Taking the whole Nominating Committee (chairs plus members), diversity judged by *Education* fell from 42 distinct institutions represented

¹²There are fourteen people who have not earned a doctoral degree and four who have earned two PhDs. All tables for which sources are not indicated are based on the authors' database described in section 3.

		Pc	NOITISC	IS IN TE	TABL IE ELECT	E 3 Coral P	оог, 19	50-2019						
				P	l Position	IS					Position	ns Held by	Women	
1	16	950-2019			1950-84		I	985-2019				1950-2019		
Office	Positions (rədmun)	Educational institutions (number)	(unmber) Employers	rodmun)	Educational institutions (number)	(number) Employers	Positions (rədmun)	Educational institutions (number)	(unmper) Employers	Positions (rədmun)	Share of all positions (percent)	Date of first appointment or nomination	Educational institutions (number)	(number) Employers
Chair of the Nominating Committee	20	23	23	35	14	20	35	19	15	4	5.7	1957	4	4
President	70	24	23	35	16	18	35	14	14	က	4.3	1986	က	co
Ordinary member of Executive	140	30	47	20	23	33	70	20	27	41	29.3	1955	16	29
Vice President	140	31	38	70	25	30	70	15	23	26	18.6	1953	12	18
Losing ordinary member of Executive	140	31	53	70	19	39	70	23	30	×	5.7	1951	9	1-
Losing Vice President	140	37	50	20	26	40	70	22	30	12	8.6	1950	6	6
Member of the Nominating Committee	422	52	104	187	40	79	235	31	59	67	23.0	1950	17	40
Executive Committee	350	41	99	175	31	48	175	26	39	70	20.0	1953	18	35
Nominating Committee	492	55	105	222	42	81	270	35	60	101	20.5	1950	17	40
Electoral pool (all positions)	1,122	65	136	537	53	110	585	42	74	191	17.0	1950	22	48
Note: Rows are ordered by increasir	num gr	ber of edi	ncation	al instit	utions, th	nen by n	number	of emple	yers.					

in the first period to 35 (a fall of 17 percent); and judged by *Employment* from 81 to 60 (a fall of 26 percent). For the Executive Committee, diversity decreased by 16 percent by *Education* and 19 percent by *Employment*. Although the percentage decrease in diversity is substantial and greater when judged by *Employment* than by *Education*, the absolute level of diversity is higher for *Employment* than *Education*.

4.1.2. Women in Leadership

Women have been included in the AEA leadership from at least the beginning of our sample in 1950 (table 3). By the mid-1950s, a woman had served in every AEA office except Chair of the Nominating Committee (first in 1957) and President (first in 1986). Although women make up 17 percent of the electoral pool, for these two highest offices, it is striking that only seven positions have been occupied by women.

It is difficult, given the temporal spread of the data, to know how to judge the relative magnitudes. One possibility would be to compare the share of women in the various offices in the electoral pool against the share of women in the AEA at the stage of career typical for each office. In most cases, members of the electoral pool are full professors at PhD-granting institutions, and typically the higher a position in the electoral pool, the longer the member has been in the profession, as judged by academic age. Surprisingly, given that the Committee on the Status of Women in the Economics Profession (CSWEP) is one of the oldest standing committees of the association, the AEA does not collect data on the proportion of women among the membership, much less by academic-age cohort.¹³

Nevertheless, to give a rough idea of an appropriate scaling, the share of female full professors of economics in PhD-granting universities rose from about 2 percent in 1974 to a little more than 14 percent in 2018 (Blank 1994, figure 1, p. 493; Lundberg 2018, table 1).¹⁴ The career path of women in academic economics has been characterized as a "leaky pipeline," in which women funnel into PhD programs and, at each juncture, from finishing their doctorates to first academic job to promotion to tenure and tenure to full professorships, some number of them drop out of the profession altogether (Buckles 2019, Lundberg and Stearns 2019, p. 14). Given such a leaky pipeline, the share of women among members who are at the appropriate stage of career to serve in a particular level of AEA office is likely to be smaller than the share of all women among all members of association, since nominees-especially for higher officestypically entered the profession many years earlier, when the number of women was even smaller. We might take 8 percent, the midpoint of the 1974 and 2018 figures as a crude yardstick, recognizing that during the period 1950-74, for which we do not have good data, the share of women in the profession was almost certainly smaller than in 1974. By this yardstick, conditional on the size of the relevant pool of potential candidates, the overall proportion of women in the electoral pool may actually be higher than their share in the top ranks of the profession. And it may also be the case that their shares are higher among ordinary members of the

¹³Upon inquiring with the AEA about the share of women Andrej Svorenčík received the following response: "We do not know because we do not require that

information to be an AEA member." (Email from Melissa A. Smith to Andrej Svorenčík dated May 7, 2020]

¹⁴Data on women's participation in the economics profession are available in the annual reports of CSWEP, beginning in 1972 and available online: https://www. aeaweb.org/about-aea/committees/cswep/survey/annualreports. Unfortunately, for the first two decades, the data are categorized inconsistently from year to year. Consistent data for PhD-granting institutions begin only in 1994.

Executive Committee, Vice Presidents, and members of the Nominating Committee. Their share is unlikely to be higher, and may well be lower, for the highest offices, Chair of the Nominating Committee and President.

A more fine-grained examination of the component positions in the electoral pool (Hoover and Svorenčík 2020) shows that, over the whole sample (1950–2019), the rate for women of winning elections for Vice President is 68 percent and for ordinary member of the Executive Committee, 84 percent; whereas the rates for all first tier nominees irrespective of gender were in the mid-50 percent range. It would appear then for the competitive offices, women are not only nominated in a higher proportion than their share in the profession, they also win more frequently.¹⁵

¹⁵Card et al. (2021) report a similar finding for elections to Econometric Society fellowships, since 2010. An earlier study of Donald and Hamermesh (2006) confirms the result that women win AEA elections at a rate higher than their rate of nomination. They consider this finding as a prima facie case of reverse discrimination by the voters, based on the fact that being female remains a positive factor in winning elections conditional on other characteristics. While reverse discrimination by the voters themselves is one interpretation-and ultimately the one that they believe to be best supported-Donald and Hamermesh suggest a possible rationalization: voters may be motivated by unobserved (to the econometrician) characteristics of the female candidates, possibly including "organizational ability, willingness to accomplish tasks on time, and ability to interact productively with colleagues in reaching decisions" (p. 1289). If these characteristics are more often found in female candidates, their higher success rate would be explained. Donald and Hamermesh (p. 1284) note that all but the last of their conditioning variables (having held a high government position, top 5 university affiliation, race, subdisciplinary field, future Nobel Prize winner) are information readily available to voters (directly or by reliable inference) from the information circulated to AEA members before each election. A problematic feature of their "rational" explanation is that it relies on information that, for individual candidates, is likely to be unobservable, not just to the econometrician, but to most AEA members as well. The membership would, then, have to be motivated by presumed group characteristics of women versus men. And perhaps they are; but no evidence is presented on that point.

4.2. Institutional Diversity through Time

4.2.1 Institutions through Time: Education

Positions are by no means evenly spread across the various institutions represented in table 3, there is, in fact, substantially less diversity in the educational backgrounds and the employment distribution of the leadership of the AEA than these summary measures suggest. For each university supplying twenty or more individuals, table 4 shows the number of positions and the share in the total positions in the electoral pool by *Education*. The 14 institutions in the table account for almost more than 80 percent of the positions for the whole 1950–2019 period. Even within this select group, the distribution is highly skewed with Harvard, the top supplying institution over the period accounting for more than a fifth of the total, and the last five universities accounting for around 2 percent each. The top five institutions, Harvard, MIT, Chicago, Columbia, and Stanford, which we designate as the *first tier*, account for over half (57.1 percent) of the positions over the whole period (see table 2 for the definition of nomenclature).

Although table 4 divides the sample into two halves, both the increasing dominance of the first tier universities, and the shifts in their relative positions can be displayed more dramatically graphically. Figure 2 breaks down the first tier by *Education* into its component institutions and plots 10-year moving averages of their shares in the electoral pool alongside those from the second and third tiers (compare to data in table 4). Looked at broadly the story is one of an insurgent first tier (rising from 48.7 percent of the positions in the decade ending in 1960 to 65.9 percent in the decade ending in 2019). The rise of the first tier came mainly at the expense of the third tier, whose share fell by more than half (25.3 percent in the decade ending in 1960 to 11.8 percent in the last decade of the

P	OSITIONS I	N THE ELE	CTORAL P	OOL BY INS	STITUTION AND	EDUCATION	7	
	195	60-84		1985-20)19		1950-201	9
Institution	Number	Share (percent)	Number	Share (percent)	Change in share (percentage points)	Number	Share (percent)	Cumulative Share (percent)
Harvard	124	23.1	110	18.8	-4.3	234	20.9	20.9
MIT	23	4.3	136	23.2	19.0	159	14.2	35.0
Chicago	64	11.9	52	8.9	-3.0	116	10.3	45.4
Columbia	53	9.9	19	3.2	-6.6	72	6.4	51.8
Stanford	17	3.2	43	7.4	4.2	60	5.3	57.1
Princeton	11	2.0	39	6.7	4.6	50	4.5	61.6
Yale	8	1.5	38	6.5	5.0	46	4.1	65.7
UC Berkeley	28	5.2	15	2.6	-2.7	43	3.8	69.5
Wisconsin	30	5.6	6	1.0	-4.6	36	3.2	72.7
Oxford	12	2.2	10	1.7	-0.5	22	2.0	74.7
LSE	18	3.4	4	0.7	-2.7	22	2.0	76.6
Michigan	13	2.4	8	1.4	-1.1	21	1.9	78.5
Pennsylvania	17	3.2	4	0.7	-2.5	21	1.9	80.4
Minnesota	5	0.9	15	2.6	1.6	20	1.8	82.2
Total	423		499			922		
Share of All Positions		78.8		85.3	6.5		82.2	100.0

 TABLE 4

 Positions in the Electoral Pool by Institution and Education

Notes: Shares are number of positions held as a fraction of the possible number of positions in the electoral pool during the relevant period. All institutions with 20 or more positions in the 1950–2019 period are reported. Differences in shares may not equal reported changes and running sums of shares may not equal reported cumulations owing to rounding.

sample); while during the same period, the second tier fell less than one-fifth (from 27.3 to 22.4 percent).

The first tier itself was also significantly reshaped. The rise of MIT may be the most striking aspect of figure 2. It is not too surprising that MIT does not even appear in the electoral pool until 1966. Lawrence Klein, who graduated in 1944, was its first PhD in economics, and a two-decade lag between doctorate and first appearance in the electoral pool is typical (Svorenčík, 2014). But after that MIT explodes, supplanting Harvard as the top ranked. Harvard had taken 24 percent of the positions in the decade ending in 1960; its high point was the 1970s (28.7 percent in the decade ending in 1979), and by the last decade of the sample it had fallen to 18.2 percent. In contrast, MIT had risen to 28.8 percent. Columbia and Stanford more or less swapped places: Columbia, which had been about 12 percent of the positions in the 1950s fell to less than 2 percent in the last decade in the sample, while Stanford rose from about 2 percent to 13 percent over the same period. Chicago (10.7 percent for the 1950s) rose to nearly 15 percent at its peak in 1980, only to fall back to less than 4 percent in the last decade of the sample.

Two points are especially worth noting in table 4. First, the top institutions for *Education* includes eight private universities and four American public universities. In the first period, the top five includes two public



Figure 2. Shares of Electoral Pool by Education (10-year Moving Average)

Note: See table 2 for category definitions.

institutions, the University of California, Berkeley (UC Berkeley), and University of Wisconsin. In the second period, every institution in the top five is private. Setting aside two British universities, for which the American private/public distinction is not well matched, in the earlier period the highest-ranked public university (Wisconsin) is ranked fourth, with UC Berkeley following close behind in fifth place; but both lose share, with Wisconsin falling to eleventh and UC Berkeley to eighth place in the later period. Michigan, too, loses rank and share, and among public universities only Minnesota gains, moving from fourteenth to eighth place.

Second, only two non-American universities are represented in table 4, and they display different fates. Although both lose share, the London School of Economics' (LSE's) numbers plummeted from eighteen to four, a drop in share of 2.7 percentage points, while Oxford's fell from twelve to ten, a drop of only 0.5 points.

4.2.2. Institutions through Time: Employment

Places of employment are considerably more diverse in the electoral pool than places of education. Table 5 shows the share in the total of the members of the electoral pool by *Employment* for the fifteen institutions (of 135) with twenty or more members for the whole sample. For the whole sample, we must include the top nine institutions (compared to the top four for *Education*) to pass the 50 percent mark. Harvard is again at the top, employing 9.2 percent (versus a

	195	60-84		1985-20)19		1950-201	9
Institution	Number	Share (percent)	Number	Share (percent)	Change in share (percentage points)	Number	Share (percent)	Cumulative Share (percent)
Harvard	47	8.8	56	9.5	0.7	103	9.2	9.2
Stanford	25	4.7	58	9.9	5.2	83	7.4	16.6
MIT	29	5.4	47	8.0	2.6	76	6.8	23.3
Chicago	30	5.6	44	7.5	1.9	74	6.6	29.9
Princeton	22	4.1	42	7.1	3.0	64	5.7	35.6
UC Berkeley	24	4.5	39	6.6	2.1	63	5.6	41.2
Yale	24	4.5	31	5.3	0.8	55	4.9	46.1
UCLA	22	4.1	15	2.6	-1.6	37	3.3	49.4
Columbia	15	2.8	19	3.2	0.4	34	3.0	52.4
Northwestern	15	2.8	14	2.4	-0.4	29	2.6	55.0
Pennsylvania	18	3.4	11	1.9	-1.5	29	2.6	57.6
Minnesota	15	2.8	12	2.0	-0.8	27	2.4	60.0
Duke	11	2.1	11	1.9	-0.2	22	2.0	62.0
Maryland	10	1.9	12	2.0	0.2	22	2.0	63.9
Michigan	8	1.5	13	2.2	0.7	21	1.9	65.8
Total	315		424		13.3	739		100.0
Share of All Positions		58.9		72.1			65.8	

 TABLE 5

 Positions in the Electoral Pool by Institution and Employment

Notes: Shares are number of positions held as a fraction of the possible number of positions in the electoral pool during the relevant period. All institutions with 20 or more positions in the 1950–2019 period are reported. Differences in shares may not equal reported changes and running sums of shares may not equal reported cumulations owing to rounding.

20.9 percent share for *Education* in table 4). Together, all fifteen institutions account for less than two-thirds of the total, whereas for *Education* the top fourteen accounted for more than 80 percent.

Although the share of the first tier is not as high as it is for *Education*, the diversity of the leadership of the AEA falls considerably over time when through the lens of *Employment* (figure 3). The generally lower share for the first-tier universities confirms the impression based on earlier tables that the places of employment of the electoral pool are more dispersed than the places of education. Nonetheless, figure 3 tells a broadly similar story to figure 2. The first tier, which had held a little more than one-fifth of the places in the 1950s, occupied more than half in the last decade of the sample. The entire gain came at the expense of the third tier: its share dropped from 51.7 percent in the decade ending in 1960 to 21.8 percent in the decade ending in 2019. The second tier, despite some fluctuations in between, took a little over a quarter of the positions in each of the decades at the beginning and the end of the sample.

In contrast with *Education*, figure 3 shows that every member of the first tier gained share with respect to *Employment* over the whole sample. The biggest gainer was Stanford, which gained nearly 12 points over



Figure 3. Shares of Electoral Pool by Employment (10-year Moving Average)

Note: See table 2 for category definitions.

the whole period. The relative positions of the universities in the first tier changed markedly. The rank order for the decade ending in 1960 was Harvard in first place, followed by Chicago, Stanford, and Princeton tied for third, and MIT last. For the decade ending in 2019, the rank order was Stanford in first place, followed by Princeton, Chicago, Harvard, and MIT.

In contrast to the case of *Education*, the developments are less stacked against the public universities judged by *Employment*. In table 5, there are ten private and five public universities. UC Berkeley is the highest ranked public university: fifth in the earlier period and sixth in the later period. Three private and two public universities lose share, but together the two public universities lose a slightly greater share than the three private universities taken together.

4.2.3. Institutions through Time: Combining Information on Education and Employment

To see the overall significance of the individual universities, figure 4 combines the information in figures 2 and 3. Because the different tiers are not identical between Education and Employment, the data has been recategorized (see table 2). The six universities that appear in *either* the first tier for Education or Employment are now referred to as the top 6; the five universities that appear in the second tier for both Education and Employment are referred to as the *common* 5; while those that appear in only one list are referred to as other second *tier: top education* and *other second tier: top* employment or, more simply, top education and top employment; and the remainder of



Figure 4. Shares of Electoral Pool by Education or Employment (10-Year Moving Average)

Notes: Counts individuals associated with each institution or category as a share of all the positions in the electoral pool. For any institution or category, shares are bounded between 0 and 100 percent: 100 percent would be reached if every position were filled by someone either educated or employed by an institution within the category. The sum of all institutions and categories is bounded between 100 percent (reached if every position were filled only by individuals both educated and employed by that institution or within that category) and 200 percent (reached if every person were educated at the same institution or within same category and employed at the same distinct institution or category). See table 2 for category definitions.

the universities, combining both third-tier lists, form the third tier for this and some later analyses.

The data for each category in figure 4 represent the ratio of individuals who occupied a position in the electoral pool and are associated with that category either by *Education* or by *Employment*. (Within each category, the values are bounded between 0 and 100 percent; and the summation of all categories is bounded between 100 and 200 percent.)

The increasing dominance of the upper tiers, mainly at the expense of the third tier, is clear. In the decade ending in 1960, 71.1 percent of members of the electoral pool were either educated or employed in the third tier. By the decade ending in 2019, the share in the third tier had fallen to 31.2 percent (i.e., by just shy of 40 points). In comparison, four of five top-six institutions gained share. the big gainers were Stanford (up by 17.7 points to a share of nearly 22 percent) and MIT (up by 29.1 points to a share of nearly 32 percent). Chicago lost share (from 14.8 percent to 11.8 percent); but only Columbia lost substantially (down 12.7 points). The second tier mainly gained modestly, although top education lost more than 13 points, falling from 16.8 to 3.5 percent.

A natural point of comparison between the data presented in the tables and figures so far would be to the pool of available candidates. Especially early in the first period, the number of PhD programs was small and the institutions in the first and second tiers were relatively more significant producers of doctoral degrees in economics. Consistent data for production of economics PhDs in the United States are available only from 1958 (appendix, figure A.2). In stark contrast to the electoral pool, the production of PhDs becomes less concentrated over time. In 1958, the top six produced nearly a quarter of the PhDs in economics in the United States, with the second tier producing a nearly identical share, and the third tier producing just under half. As the number of doctoral programs grew, the share of the third tier grew to more than 70 percent in 2017 (the last year for which data are available). During the whole period, the share of the top six fell from 24.5 to 12.5 percent, and the share of the second tier fell from 26.5 percent to 16.2 percent.

As well as considering *Education* and *Employment* disjunctively as in figure 4, we have also examined their conjunction, when positions in the electoral pool go to people both educated and employed at the same institution (see appendix, figure A.3). In the decade ending in 1960, the economists in the top two tiers who were educated and employed in the same university accounted for 12.8 percent of all positions. Their share rose until peaking in the decade ending in 1987 at 24.4 percent; but it fell back, so that by the end of the sample it was only 16.5 percent.

5. Networks of Preferential Attachment

Two broad patterns emerge clearly from the data. First, the leadership of the AEA is drawn largely from a small group of institutions: whether seen through the lens of *Employment* or through the lens of *Education*, where AEA members work and where they receive their professional education are strongly associated with their likelihood of becoming part of the leadership or the electoral pool of the association. Second, the dominant institutions have become more concentrated over time. What accounts for the substantial and increasing dominance of such a small number of institutions?

5.1. The Matthew Effect

It is instructive to plot the shares of the different institutions against their rank, as is done for *Education* in figure 5 and *Employment* in figure 6. In both cases the shares fall rapidly, though at a decreasing rate, as rank increases. Such data are often modeled using negative exponential curves, frequently referred to as Zipf's laws, belonging to a family of *power-law distributions*, which takes the form: *share* = $\alpha(rank)^{-\beta}$, where α and β are parameters. Curves of this form fit the data in figure 5 for *Education* and figure 6 for *Employment* fairly well.

Power laws arise frequently in both natural and social data (Gabaix 2016). One mechanism that may generate a power-law distribution could be relevant to the case of the AEA leadership. Power laws naturally arise in social settings that display *preferential attachment*, a dynamic process in which new increments of a quantity or a good accrue in proportion to how much one currently possesses (Barabási and Albert 1999).

Preferential attachment is not merely a bias toward certain people or institutions grounded in some characteristics, such as merit or a favored institution. Rather, it is a dynamic bias in which the probability of attachment increases endogenously. The sociologist, Robert K. Merton (1968), in discussing the distribution of scientific credit coined the term "Matthew effect"—named



Figure 5. Zipf's Law for Electoral Pool by Education, 1950-2019



Figure 6. Zipf's Law for Electoral Pool by Employment, 1950-2019

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	Shares c	F POSITIONS IN TH	⁶ he Electoral Poc	L	
		1950-84	1		
		Educat	<i>ion</i> (percent)		
Employment	Top 6	Common 5	Other Second Tier	Third Tier	Employ- ment Total
Тор б	20.5	3.2	3.4	4.3	31.3
Common 5	8.4	2.8	2.2	3.2	16.6
Other Second Tier	4.9	1.3	0.6	4.1	10.8
Third Tier	20.7	5.4	5.2	9.9	41.2
Education Total	54.5	12.7	11.4	21.5	100.0
		1985-201	19		
		Educat	ion (percent)		
			Other		Employ-
Employment	Top 6	Common 5	Second Tier	Third Tier	ment Total
Тор б	33.2	4.1	2.7	5.3	45.2
Common 5	11.4	3.6	0.5	2.6	18.0
Other Second Tier	5.6	1.9	0.0	1.4	8.8
Third Tier	17.9	4.3	0.2	5.6	27.9
Education Total	68.0	13.8	3.4	14.8	100.0

Notes: Data are percentage shares of the total positions in the Electoral Pool in each period cross-tabulating by *Education* and *Employment*. See table 2 for category definitions. Totals may not equal sums of components owing to rounding.

for the passage in the New Testament's book of Matthew (13:12), "For whosoever hath, to him shall be given, and he shall have more abundance: but whosoever hath not, from him shall be taken away even that he hath." The appearance of a power-law distribution of AEA leadership positions might suggest a network in which the presence of incumbents associated with particular institutions renders it increasingly likely that nomination to the electoral pool will be drawn from those same institutions. Networks of preferential attachment would explain, on the one hand, the increasing dominance of particular institutions and, on the other hand, levels of institutional dominance that seem to exceed what might reasonably be attributed to an independently uneven distribution of merit-either academic or administrative.

5.2. The Structure of the Network

The power-law curves of figures 5 and 6 are highly suggestive of preferential attachment, and we already know from section 4 that a small number of institutions not only dominate the leadership but that their dominance has increased over time. Do they form a discernible network?

We first address this question with broader aggregates. Table 6 cross-tabulates the distribution of positions in the electoral pool by *Education* and *Employment*. Each row shows the share of nominees or appointees in each *Employment* category falling into each *Education* category; each column shows the share for each *Education* category falling into each *Employment* category at the time of their nomination or appointment. For example, in the 1950–84 period,

the second row, first column shows that 8.4 percent of the positions were held by people educated in top-six universities and employed in the common 5. The Education total for the 1950–84 period again shows the dominance of the top six in *Education*, which only increased to the 1985–2019 period, suggesting a concentration in career paths of members of the electoral pool especially for people educated in top-six universities who are employed in top six as well. In contrast, the *Employment* totals show that, although the top six are important as employers, the employment affiliations of members of the electoral pool are more widely distributed. Still, if we consider the top six and the common five together, they dominate both Education (67.2 percent) and Employment (47.9 percent) in the first period. And the upper left-hand four cells (darker shaded area) show that more than one-third of all positions were held by economists both educated and employed in the top six and common five. A wider block consisting of the upper left-hand nine cells (darker + lighter)shaded areas) shows that economists both educated and employed in the first and second tiers together account for more than half of all the positions.

To investigate the differential roles of *Education* and *Employment*, table 7 in effect disaggregates the data in table 6, with the rows indicating individual institutions as employers and the columns as places of education. The data have been arranged with the goal of placing more tightly connected institutions closer together (based informally on the overall strengths of their linkages). For the 1950–84 period, the two shaded areas of the upper panel of table 7 indicate two groups of universities that appear to be tightly interconnected within each group and much less tightly connected to universities outside the group. The upper left-hand block (darker shading), comprising Harvard, UC Berkeley, MIT, Yale, and Pennsylvania, accounts for 92

(or 49 percent) of the positions in the table. Within that block Harvard dominates as the place of education, taking 59 of the 92 positions (or 64 percent of the block total). The lower right-hand block (lighter shading), comprising Chicago, Columbia, and Stanford, contains both fewer universities and fewer positions (47 or 25 percent of the positions in the table). While tightly linked, unlike the Harvard-dominated block, no one institution dominates either *Education* or *Employment*.

Developments that have been noted previously are reflected in the differences between the earlier periods. In some sense, the two blocks of the earlier period (upper panel of table 7) are merged in the later period (lower panel) to form a single, tightly connected block with a yet more tightly connected block as its core. Columbia and Pennsylvania have dropped out of blocks altogether, while Stanford has joined the larger block and Princeton the more tightly connected core. The single block, constituting the two distinct shaded areas, accounts for 246 of the 307 positions in the table (80 percent).

MIT replaces Harvard as the largest place of education in the later period (102 positions or 31 percent of the total) and in the joint block (87 of 246 positions or 35 percent of the block). But Harvard has not been totally eclipsed as judged by Education. It still accounts for 65 positions, or 21 percent of the table total, and 58 positions, or 24 percent of the block total. Harvard and MIT are so closely linked by both *Education* and *Employment* that they might be regarded for some purposes as a single institution. Together they account for 59 percent of the table total and 54 percent of the block total, whereas in the 1950-84 period, they accounted for 47 percent of the table total.

The more tightly connected core (darker shaded area of the lower panel),

						1950-84					
				Educ	cation (r	number	of posit	ions)			
Employment	Harvard	UC Berkeley	MIT	Yale	Pennsylvania	Chicago	Columbia	Stanford	Princeton	Michigan	Minnesota
Harvard UC Berkeley MIT Yale Pennsylvania	$21 \\ 13 \\ 13 \\ 10 \\ 2 \\ 5$	6 3 1	2 5 3 4	1	8	3 4 1	2 3 1 1			1	1
Columbia University Stanford Princeton Michigan Minnesota	3 3 3	4	1	2 1		11 5	6 8	11 1	3	2	1
				Educ	19 cation (r	985–201 1umber	.9 of posit	ions)			
Employment	MIT	Harvard	Chicago	Princeton	UC Berkeley	Stanford	Yale	Columbia	Michigan	Pennsylvania	Minnesota
MIT Harvard Chicago Princeton UC Berkeley Stanford Yale	$22 \\ 15 \\ 3 \\ 9 \\ 13 \\ 10 \\ 15$	4 18 13 13 3 5 2	1 8 9 2 2	$2 \\ 3 \\ 5 \\ 4 \\ 3 \\ 4$	1 2 1 1		3 3 5 8 5	2 1 2	1	1	$\begin{array}{c}1\\1\\2\\4\end{array}$
Columbia Michigan Pennsylvania Minnesota	6 7 2	3 1 1 2	1	5 2		1	2 2 1	2 3	1		

 TABLE 7

 The Electoral Pool by Education and Employment and Institution

comprising MIT, Harvard, Chicago, and Princeton, dominates the larger block. It contains 127 positions, or 41 percent of the total for the table, and 52 percent of the positions in the larger block (the darker plus the lighter shaded areas). And within this core, MIT and Harvard dominate with 76 percent of the positions by *Education* and 55 percent of the positions by *Employment*.

5.3. Comparison of the Nominating Committee with the Executive Committee

The interaction between the Nominating Committee and the Executive Committee is crucial for determining the slate of candidates for leadership positions that is put forward to the general AEA membership, and thus for creating a potentially self-perpetuating network. As mentioned in section 2, the President-elect is responsible for appointing the Nominating Committee for the year that he or she holds that office. Although the Nominating Committee presents at least two names for each office to the Executive Committee, the final slate of candidates is made jointly by the two committees.¹⁶

Table 8 cross-tabulates *Education* and *Employment* for each committee and for each half of the sample. In each period, the Nominating Committee is more diverse than the Executive Committee, especially in terms of *Employment*. And diversity decreases in the later period, especially for the Executive Committee. The biggest gain of share is among those who are both educated and employed in the top six. Their share increased 56 percent in the Executive Committee.

In the earlier period, half the members of the Nominating Committee were employed in the third tier, while in the second period it was only one-third. The whole third tier's 16-point loss of share was gained by the top six. Members with a top-six education, who already constituted more than half of the Executive Committee in the earlier period, were three-quarters of the committee in the later period. By *Education*, every other group lost share, with the other second tier losing the most—more than two-thirds (an 11-point drop). Similarly, for members of the Executive Committee by *Employment*, the top six gained nearly 13 points between the earlier and later periods to take more than half of the total positions, while every other group lost share, with the third tier counting for two-thirds of those losses.

6. Explaining Preferences

6.1. A Taxonomy of Preferences

While the evidence in favor of the existence of a network of preferential attachment in the AEA leadership is compelling, it does not in itself explain the basis for the preferences that drive network formation. Two types of explanation come readily to mind: First, if the quality of candidates for the electoral pool is, for reasons unrelated to the AEA, distributed unevenly across institutions, and if the Nominating Committee were motivated by the quality of the candidates, then it would be natural for membership in the electoral pool to be similarly unevenly distributed. We refer to this explanation as based in *merit*. Second, if the members of the Nominating Committee were motivated to favor candidates from institutions that are currently represented in the leadership, then a self-maintaining insider network would arise in which membership in the electoral pool would reflect a narrow group of institutions whether or not its members were typically of higher quality than potential members associated with non-favored institutions. We refer to this explanation as based in privilege.

The notion of quality implicit in the designation "merit" requires further elaboration. In general, quality and status among economists is most often associated with *academic* merit—that is, with success in

¹⁶ Should the Nominating Committee have more members than the Executive Committee, the votes of the members of the Nominating Committee are capped so that its influence over the slate never exceeds that of the Executive Committee.

					Executive	Committee				
		Educe	1950–84 ation (pe	rcent)] Educ	985–201 ation (pe	9 ercent)	
Employment (percent)	Top 6	Common 5	Other Second Tier	Third Tier	<i>Employment</i> Total	Top 6	Common 5	Other Second Tier	Third Tier	<i>Employment</i> Total
Тор б	26.3	5.1	5.1	5.1	41.7	41.1	2.9	4.0	6.3	54.3
Common 5	10.9	1.7	3.4	2.9	18.9	13.1	2.9	0.6	1.7	18.3
Other Second Tier	4.0	1.1	1.1	5.7	12.0	6.3	1.1	0.0	1.1	8.6
Third Tier	12.6	2.3	6.3	6.3	27.4	14.9	1.7	0.6	1.7	18.9
Education Total	53.7	10.3	16.0	20.0	100.0	75.4	8.6	5.1	10.9	100.0

TABLE 8 Shares of Positions in Executive and Nominating Committees

]	Nominating	Committe	e			
		Educe	1950–84 ation (ре	4 ercent)			1 Educe	985–201 <i>ition</i> (ре	9 ercent)	
Employment (percent)	Top 6	Common 5	Other Second Tier	Third Tier	<i>Employment</i> Total	Top 6	Common 5	Other Second Tier	Third Tier	<i>Employment</i> Total
Тор б	16.4	1.8	2.7	2.7	23.6	28.3	4.0	2.9	5.1	40.4
Common 5	7.3	2.7	1.4	2.3	13.6	10.7	3.7	0.4	2.2	16.9
Other Second Tier	5.5	1.8	0.5	4.5	12.3	5.1	2.2	0.0	1.5	8.8
Third Tier	25.5	8.2	5.0	11.8	50.5	22.1	6.6	0.0	5.1	33.8
Education Total	54.6	14.5	9.5	21.4	100.0	66.2	16.5	3.3	14.0	100.0
Note: Totals may not	equal sum	us of com	nonents	owing to	2 rounding					

Note: Totals may not equal sums of components owing to rounding.

research as reflected in publications in top journals, citations, prizes, and other markers of productivity and influence.¹⁷ For various historical, institutional, and financial reasons, economics departments in some institutions are stronger on these measures of merit than other departments. If economists are nominated for positions in the AEA leadership on the basis of such

¹⁷Recall that we are not claiming that these necessarily adequately or accurately capture genuine merit, but only that they are widely treated as doing so within academia.

For our purposes, it is perceptions and practices that are relevant.

academic merit, we would naturally expect that membership in the electoral pool would be distributed similarly to the distribution of academic merit.

Although economists value academic merit, it not obvious that it is the characteristic most relevant to leadership of a society. Legislative ability or administrative skills are probably more important, although in an academic association these may not be completely independent of academic merit. Still, since economics departments typically concern themselves far more with academic merit than with these skills, it seems even more unlikely that they are highly concentrated in a few institutions.

In contrast to either of these merit-based explanations, explanations based in privilege suggest that institutional concentration arises from mechanisms that favor candidates from institutions that are already centrally situated in the network. The AEA Climate Survey (p. 29) suggests one such mechanism: "the feeling is that it is a 'good old boys network' that only lets in other boys." Group loyalty, the desire to promote one's own kind, is described as homophily, endogamy, in-group bias, or inbreeding. The case in which it consists in colleagues and people with the same educational background and professional affiliations, sometimes referred to as "the old school tie," is widely acknowledged as sociological force in network formation (Collins 1998; McPherson, Smith-Lovin, and Cook 2001). And it has previously been noted among economists. Colander (2015) observed a high degree of inbreeding and low diversity in top departments judged by the institutions at which they were educated. Svorenčík (2018) observed that 56 out of the 90 most prolific economics advisers at Harvard, MIT, and Chicago graduated from one of those institutions. Both results can be interpreted as best graduates stay or, at some point of their careers, return to their graduate institution

"Privilege" is to some degree a loaded term. A commentator on an earlier version of this paper interpreted us to be suggesting group loyalty had trumped merit and suggested an alternative explanation based on limited information. The commentator argued that one should not regard leadership positions in the AEA as personal rewards to the incumbents. Instead, officeholders should be seen as people who gain few personal benefits and act out of a sense of duty and public-spiritedness to fill onerous, but necessary, jobs to advance the interests of the economics profession. With that in mind, the question that the Nominating Committee faces is simply, who will do the job well? The committee members' information is limited and is much better for people whom they knew as students or know as colleagues, which leads them to prefer scholars from similar backgrounds to themselves. Nominations thus reflect the best choices given available information. The importance of information networks for hiring decisions has been long acknowledged by sociologists (Granovetter 1995) and more recently by economists (Ioannides and Loury 2004).

Although the informational explanation would exonerate the Nominating Committee from the charge of ignoring candidate quality, the judgment of quality is conditional on the candidate coming to the committee's attention. It would, therefore, still have the effect of raising the probability of nomination for candidates with associations with the incumbent leadership, thereby reinforcing concentration in the network, while ignoring candidates of equal or better quality who do not come readily to the committee's attention.

6.2. Merit versus Privilege

We have then identified two broad types of explanation of the network: merit or privilege. Within merit, we identify two types: academic and nonacademic. Within privilege we also identified two types: group loyalty and informational preference. The taxonomy is imperfect, as the categories are neither exhaustive nor mutually exclusive. And the observed facts may not provide adequate information to prefer one over the other.

We might, for instance, look to standard measures of quality—citations, number of publications in top journals, and so forth-to check whether dominance tracks academic merit. For example, in one worldwide ranking of departments, the median rank of the top six is fifth; of the common five, eleventh; and of other second tier universities, twenty-sixth (Tilburg 2019).¹⁸ The similarity of departmental rankings and the order of departments in AEA's leadership does not explain why academic merit is unevenly distributed in the first place. And while it is not surprising that academic merit is unevenly distributed, it seems unlikely that it is as heavily skewed as the AEA leadership: is four-fifths of all the academic talent really concentrated in just six just universities?

With a little reflection, the similarity between departmental rankings and the institutional distribution of the AEA leadership might suggest that the potential for institutional loyalty on the part of editors might well give yet another example of the Matthew effect. There is, in fact, a substantial body of evidence that the social ties between journal editors and authors matter (Laband and Piette 1994; Hodgson and Rothman 1999; Brogaard, Engelberg, and Parsons 2014; Colussi 2018; Heckman and Moktan 2020; Ductor and Visser 2023).¹⁹

¹⁸The top-ranked university in our study is Harvard (first) and the bottom ranked, Wisconsin (thirty-fourth). All 18 universities in the top two tiers are included among the top 34 universities in the ranking, and only four are included that do not appear either on the *Education* or *Employment* list. The Tilburg ranking does not include every university in our third tier and ranks only universities, and not other institutions that employ economists.

¹⁹Laband and Piette (1994) document that authors connected to editors of journals are more likely to be published in those journals, and that their articles typically Therefore the same difficult question of merit versus self-perpetuation of an in-group arises when considering success at publication as well, so that publication and citation records are unlikely to cleanly resolve the underlying questions. More subtle information is needed, measures of merit that are independent of the competing explanations of the institutional distribution of the electoral pool. While we will consider some additional evidence, it is well to be clear from the outset that it will be at best suggestive and not decisive.

generate more citations. Similarly, Brogaard, Engelberg, and Parsons (2014) find that authors are substantially more likely to publish in a journal during periods when a colleague is editor compared to other periods and, again, that these articles generate higher levels of citations than those of unconnected authors. Hodgson and Rothman analyzed the doctoral origins of editors of the top 30 economics journals by 1995 citation impact factor. They found that MIT, Harvard, and Chicago graduates account for one-third of all editors and ten US departments with a highest editors' share account for almost 61 percent, suggesting that an institutional oligopoly is at play. Colusi analyzed top general economics journals in the period 2000-06 and concluded that 43 percent of all papers are connected to at least of the editors. Obtaining a PhD from the same university in the three-year window, serving as faculty in a department at the time when an author earned the PhD degree, being faculty at the same department, or having coauthored a paper in the past are the social ties that Colussi considered. Heckman and Moktan (2020) corroborate these results and estimate high incest rates-the share of papers with the same affiliation for the author and editor. Ductor and Visser (2023) analyzed editorial boards of more than 100 economics journals over the period 1990-2011. They classified journals into top five (American Economic Review, Econometrica, Journal of Political Economy, Quarterly Journal of Economics and the Review of Economic Studies) and two lower tiers (based on rankings from the Tinbergen Institute). They concluded that six US universities educated 47 percent of the members of the editorial boards for the top five journals, 37 percent for A-ranked journals, and 20 percent for B-ranked journals (p. 19). The shares on boards according to where editors are employed are lower, but the dominance of these institutions has been persistent over time. (Our first tier for Education is a proper subset of their top six universities by education, while four of the universities in our first tier for Employment are included in their top six by employment.) Kleemans and Thornton (2021) show that membership in the influential National Bureau of Economic Research (NBER) also shows the markers of strong network effects.

6.2.1. Academic Age

Participation in leadership is positively correlated with academic age, measured as the number of years since an individual received his or her highest degree (typically a doctorate). Ranked from highest to lowest academic age (consolidating the winning and losing candidates for contested positions), the order of positions in the electoral pool is Chair of the Nominating Committee (average academic age, 37.0 years), President (36.5), Vice President (26.4), member of the Nominating Committee (22.6), and ordinary member of the Executive Committee (19.6). If merit alone were the main driver of the substantial and increasing concentration of positions in the electoral pool then, conditional on being meritorious, we would expect academic age to be the same on average regardless of institution. In contrast, if institutions matter independently of individual merit, then we would expect individuals selected from less prestigious institutions to have a higher academic age, having to collect higher professional merit to offset the institutional bias. Such a difference would favor privilege over merit as the explanation for preferential attachment.

Looked at through the lens of *Education*, there is a clear pattern of average academic age at the time of first taking a position in the electoral pool rising monotonically. In the first half of the sample, the difference between the top six and the third tier is 3.0 years, while in the second half it is 3.7 years. Through the lens of *Employment*, in the first half, the pattern is actually reversed with the gap in academic age *falling* between the top six and the third tier. However, the second half shows the same pattern as *Education*: a monotonic rise with the top six entering the electoral pool 3.5 years earlier. (Further details are included in appendix table A.3.)

On balance, then, the evidence points toward a bias against candidates from

lower-ranked universities—for privilege rather than merit, although the evidence could be consistent with either group loyalty or an informational advantage favoring an in-group.

6.2.2. Renomination

Another source of information that might help to discriminate between the two sources of privilege could be the data on renomination. Whether the relevant concept of merit is academic merit or something else, it is likely to be distributed widely but unevenly. If nomination or election to AEA offices were based entirely on merit, it would not be surprising to find a higher share of members of the electoral pool in more prestigious institutions; but, conditional on equal merit, we would expect the same probability of selection. If candidates at lesser institutions are less likely to be selected (or, equivalently, must display higher merit to be selected), then privilege—a preference for institutional affiliations—matters independently of merit.

Across the whole sample, the average number of positions held by distinct individuals in the electoral pool is around two. Thus, once chosen for a position, members are typically be chosen again for other positions. If merit alone matters, then, conditional on having been chosen for a first position, there would be no a priori reason to assume that the average number of positions held by an individual would be higher for people affiliated with one institution or another. In fact, when viewed through the lens of *Education*, none of the tiers differs from the average by more than one-tenth of a point in either period. (See appendix table A.4 for details.)

In contrast, when viewed through the lens of *Employment*, positions per distinct member fall monotonically in both periods from the top six to the lower tiers. The gap between the top six and the third tier widens from 0.5 points (a 26 percent deficit for the lower tier) in the earlier period to 0.9 points (a 41 percent deficit) in the later period. Where one works seems to continue to matter for subsequent positions, even once a member has joined the electoral pool. (See appendix table A.5 for details.)

Overall, while the evidence of academic age and renomination is not univocal, on balance it suggests that privilege—that is, factors other than pure merit—matters. The lack of perfect clarity should not be surprising; the data are, at best, imperfect measures that capture multiple influences. Beyond that, to the degree that merit does guide the nomination process, these measures are not well suited to discriminating among its sources—ability to do the job, academic excellence, or some other criterion.

6.2.3. Presidents

Of all of the AEA leadership positions, the office of President is the one that is most clearly a recognition of academic excellence. It is the office in which the achievements of the officeholder are publicly celebrated. One of the President's main duties is to deliver an address at the annual AEA meetings, which is invariably a reflection of the research for which he or she is known.²⁰ Holders of the presidential office are well-known in the profession, so that it is unlikely that the informational explanation of preferential attachment applies in their cases. It may, therefore, be instructive to look at academic age with respect to the different institutional groupings of the Presidents separately from other members of the electoral pool. The evidential logic is the same as in the two preceding subsections: if merit alone is the basis for nomination to the presidency, then, conditional on having been selected, academic age should be independent of institution; while if institutions matter, academic age should be higher for candidates in lower tiers, as it permits them a longer time to build the merit needed to offset their institutional disadvantage.²¹

Because the total number of Presidents is small in each of our subperiods (35) and because the share of Presidents going to the top six is so high—around half in the earlier period and around two-thirds in the later period—there is a potential small-numbers problem with taking fine cuts of the data. We therefore group the entire and second and third tiers together. By *Education* in the earlier period, Presidents from the top six were elected 5.5 years earlier on average. In the later period, however, Presidents from the combined lower tiers were actually elected a little earlier, although the gap is small (less than one year). By *Employment*, the differences are small in both periods, with lower tiers being elected 0.3 years later in the earlier period and 0.4 years later in the later period. (See table A.6 for details.)

While not decisive, the evidence of the academic age of Presidents on balance slightly favors a merit-based explanation. The evidence thus pushes in a different direction than that of academic age on entering a first AEA office and renomination. But, as we noted at the outset, what makes the office of President special is that we have a

 $^{^{20}{\}rm Of}$ 123 Presidents of the AEA only four have been women; three within our sample period (Alice Rivlin, Anne Krueger, and Claudia Goldin) and one in 2020 (Janet Yellen). In addition, at the time of our writing, a fifth (Christina Romer) has been nominated as President-elect in the 2020 elections.

 $^{^{21}}$ Diamond and Toth (2007) provide an econometric study of the determinants of nominations for AEA Presidents for the decade of the 1950s only. They conclude that there is "some evidence against the belief in the importance of an 'old-boy' network" (p. 135). The absence of evidence is not the evidence of absence. Their data cover only members of the Executive Committee, thus asking only whether there is a club within a club, not whether the Executive Committee is already an exclusive group. And given the small numbers (10 Presidents + 45 other members), their test has very low power against the alternative that being educated at the "top three" (defined as Harvard, Columbia, and Chicago) raises a member's chance of being nominated.

priori reasons to think that merit might be a dominant consideration. It is unclear to what degree lessons from this office translate to other, competitive positions in the electoral pool.

6.2.4. Nobel Laureates

Another way of controlling for academic merit between the tiers may be to consider winners of the Nobel Prize in Economics. In this case, there is an assessment of academic merit independent of the views of the AEA Nominating Committee, one that may give us evidence of academic merit that is less likely to be mixed with other considerations and, therefore, of more use in sorting out the question of whether preferential attachment is driven by other factors. The assumption that the prize is more driven by merit than institutional position does not imply that the Matthew effect is not in play, but only that it adheres to the individual and not to the institution, and that should be helpful in separating academic merit from other sources of merit, as well as for providing evidence on merit versus privilege.²² And it is unlikely, in the case that academic merit is dominant, that informational limitations explain the distribution of Nobel laureates in the AEA leadership: Nobel laureates are generally well-known and highly regarded long before they receive their prize.

The Nobel Prize in Economics was first awarded in 1969, more than half way into the first period of our sample. This lack of overlap is mitigated somewhat by the fact that most, if not all, the Nobel laureates of the first period had already established their careers by the beginning of the sample and well before they were considered for AEA leadership.

The relevant Nobel laureates are not ones who are necessarily Americans by birth or citizenship; rather they are the ones who at the time of their nomination to a position in the AEA leadership were employed at an American institution. There are 66 Nobel laureates who made careers wholly or largely at American institutions out of 81 laureates minted during our sample period. Nearly two thirds took part in the AEA leadership in the sense of showing up in the electoral pool. The top six comprises a similar proportion of the laureates among both those taking part and those not taking part in AEA leadership when judged by *Education* (64.3 and 66.7 percent) or when judged by *Employment* (59.5 and 62.5 percent). Again, to avoid small-numbers problems, we consolidate the lower tiers into one.

Once again, the logic is similar to that used with respect to academic age. However, the data are measured not as years from receipt of highest degree (academic age); rather it is the number of years after the receipt of the Nobel Prize—generally a negative number, but possibly a positive one. The idea is that, if institutional preference dominates academic quality as a consideration in appointments, those Nobel laureates connected to higher tier institutions would reach various stages of AEA leadership earlier (i.e., have a higher number of years from receipt of the Nobel Prize to AEA leadership).

Consider first the point of being tapped for the electoral pool. Through the lens of *Education*, Nobel laureates in the top six enter their first position in the electoral pool 4.7 years earlier than those in lower tiers, while through the lens of *Employment*, they enter 3.4 years later. About two-thirds of the Nobel laureates who served in the AEA leadership became Presidents by the end of the sample. By *Education*, laureates in the top six are elected President 5.8 years earlier; by

²²Of course, we cannot rule out that the Nobel Committee itself takes other factors than merit into account. Hamermesh and Schmidt (2003) study the determinants of elections of Fellows of the Econometric Society and conclude that "other characteristics [than quality of the candidates] do significantly predict election" (p. 399).

Employment, 0.7 earlier. (See appendix table A.7 for details.)

On balance the evidence of the Nobel Prize winners leans strongly toward the view that institutional preference—especially toward the institution where a winner was educated—plays a part beyond any considerations of intellectual merit.

7. Governed by an Elite

What, in the end, have we learned about who runs the AEA? The most obvious lessons are, perhaps, hardly surprising: the AEA leadership is overwhelmingly drawn from a small group of elite, private research universities—in the sense that its leaders were educated at these universities and, to a lesser degree, employed by them. What is less well-known is that for much of the past 70 years, the AEA leadership has been drawn predominantly from just three universities—Harvard, MIT, and Chicago. The leadership is spread more widely among places of employment; but, here too, a small number of institutions dominate. While the concentration of the leadership in elite universities was already clear in the 1950s, the pattern has become more pronounced through time: even within the group of elite universities, the top group has become more important and the bottom group less so; the few public institutions represented have been increasingly marginalized. The vast majority of American universities with graduate programs and employers of economists other than elite universities have, at best, enjoyed token representation among the leadership. This becomes even more striking when one considers the substantial growth in the number of PhD programs and economics departments in the postwar period, and the resulting decrease in relative shares of graduates of Harvard, MIT, and Chicago on the annual production of new economists.

An especially striking result is the rise in importance of MIT, which not only replaced Columbia in the top three, but displaced Harvard as number one.²³

The case of MIT and the increasing marginalization of public universities suggests that our story should be seen in the larger context of the transformation of American higher education. The history of the post-World War II period includes a massive expansion of higher education generally, the explosion of, and the increasing orientation of universities toward, sponsored research, which is itself closely related to a massive expansion in graduate education and the output of PhD holders in economics, as in other fields. While public universities grew rapidly in the early postwar period, the share of the government in the funding of state universities fell significantly in the later period, opening up and widening the gap between public and private universities in available resources. MIT seems to have caught the wave of the initial boost to higher education, while the public universities seem to have suffered from the later unfavorable fiscal environment.

Aside from these external considerations, there is strong evidence in the data of an internal dynamic to the path of the institutional composition of the AEA leadership. In particular, the interaction of educational history and later employment of members of the leadership suggests the importance of network effects. The structures of nomination and election to the AEA leadership have created a process that would allow, though by no means guarantee, the replication and increasing dominance of an in-group. They

²³The importance of MIT to the history of American economics was the subject of one of the annual History of Political Economy Conferences at Duke University and the related conference volume, *MIT and the Transformation of American Economics* (Weintraub 2014). Svorenčík (2014), in this volume, provides a detailed quantitative analysis of MIT economics graduates and faculty.

are relatively impervious to challenge from the outside.

In one sense, our quantitative documentation of the institutional affiliations of the AEA leadership merely confirm beliefs already widely held within the profession. As one AEA member quoted in the Climate Survey puts it: "What is there, like 20,000 economists in the US—most of whom don't work at elite schools, and yet the leadership group of the AEA is consistently represented by those from the same six schools" (AEA 2019, p. 31). Our findings are certainly consistent with this view, but there is more to the story than captured by such anecdotal observations.

It is not simply that six elite schools dominate the leadership. It is also that the dominance has grown through time and displays the hallmarks of a network of preferential attachment. The existence of such a dynamic network is clear. True, the final ballot presented to the general AEA membership is a result of a joint vote of the Executive Committee and the Nominating Committee. Yet, the Chair of the Nominating Committee is always a past officer of the Executive Committee (typically a most recent past President), the President-elect chooses the members of the Nominating Committee, and the Nominating Committee members cannot have a larger voting power than the members of the Executive Committee. Put differently, due to the AEA Bylaws, the Executive Committee holds sway over the candidates for Executive Committee offices.

What is less clear is what the nature of the preferential attachment that drives the network formation is. Is it merit or privilege in the wide sense of, for whatever reason, favoring the choice of members with particular institutional affiliations? If it is merit, what is the nature of the merit that is favored—academic merit or something else, such as administrative or legislative competence? And if it is privilege, is it simply a raw preference for candidates from particular institutions or is it a preference for candidates of certain abilities that adheres to particular institutions because the Nominating Committee is better informed about candidates from institutions with which they already have a relationship?

The alternatives—merit versus privilege, academic merit verus administrative merit, institutional preference versus informational bias—are difficult to distinguish in the data, and we do not pretend to have done so definitively. As we read the data, the balance of the evidence leans toward privilege over merit. The evidence of academic age on entering the AEA leadership and of renomination rates once in the leadership point, albeit imperfectly, toward possessing certain institutional affiliations raising the likelihood of selection as a factor independent of merit. On the other side, the evidence suggests that there may be little of such bias in the selection of AEA Presidents. Yet, against that, focusing on Nobel laureates, which we believe provides better control for academic merit than the AEA presidency and which separates it more clearly from sources of preferential attachment associated with informational limitations, again points toward an institutional bias in the selection of AEA leaders.

The suggestive and not fully conclusive nature of our analysis clearly leaves opportunities for further research that we would like to pursue, but it should not detract from the importance of the subject matter nor from recognizing the significance of the evidence already on the table. In this we subscribe to Akerlof's (2020) recommendation not to avoid problems for which we do not yet have a sufficiently sophisticated analysis: "Such bias leads economic research to ignore important topics and problems that are difficult to approach in a 'hard' way—thereby resulting in 'sins of omission'" (p. 405). Although we have been careful throughout to present a positive account of the data and not to push for any normative assessment, what makes the positive facts worth knowing and makes a topic that is "difficult to approach in a 'hard' way" into an important one is its relevance for normative questions: How should the AEA be organized? How should the AEA be run?

As we noted at the outset, the tension between the vision of the association as an elite institution and as a democratic institution, goes back to its founding. Should the association represent the interests of the breadth of its membership? Indeed, does an association with its leadership dominantly drawn from six universities, in fact, adequately understand or address those interests? The data deployed in this paper may sharpen the questions raised by this tension, but they by no means resolve it.

Even if, the membership is satisfied with the current institutionally concentrated leadership, the question remains: exactly what are the interests of the society? The current AEA Bylaws state that the "particular business and objects" of the AEA as stated in its bylaws are "1. [t]he encouragement of economic research . . . 2. publications on economic subjects. . . [and] 3. encouragement of perfect freedom of economic discussion."²⁴ Even if one fully endorses these goals, the question of how best to achieve them must be addressed.

If admission to the leadership follows merit, a normative question remains open as to whether *intellectual* merit should be translated into political power in a democratic institution. The AEA has exerted a considerable effort in the past few decades, and past few years in particular, to increase diversity of its membership in terms of gender, race and representation of minorities, and to eliminate various unfair practices in the profession. Therefore, it is a serious question for the current leadership and membership whether the best way to promote research and free academic discussion is to assign the control of an association with a wide membership to those members who are the individually most accomplished researchers or to a more widely dispersed and representative group.

The Climate Survey suggests that some AEA members are skeptical of the current arrangements. One member commented "[t]he 'representation' of actual economists among the AEA leadership is a joke and changing it would be a necessary precursor to any real movement in the field" (AEA 2019, p. 31). Our research suggests that democratization of the AEA leadership would probably require structural changes. In particular, measures that would break the dynamic of network formation would be necessary. Key points of leverage would be arrangements that forced the Executive Committee to be drawn from a broader spectrum of institutions and the establishment of a Nominating Committee with greater independence from the incumbent leadership. In particular abandoning the practices of having past Presidents serve as Chairs of the Nominating Committee and of requiring the slate of candidates to be approved jointly by the Nominating and Executive Committees would help to decouple nominations from the existing structure of the leadership.²⁵

Increasing the number of candidates could offer a wider and more diverse choice of candidates. Publishing the vote tallies would be more transparent and align the AEA with the universally accepted practice of genuine democratic institutions and could very well generate increased interest in the elections and

²⁴ https://www.aeaweb.org/about-aea/bylaws, "Certificate of Incorporation," p. 1 (accessed February 11, 2020).

²⁵The AEA could also collect better information about its members and publish it regularly. The last biographical listing of members appeared in 1997.

electoral process. The interim report of the AEA Ad Hoc Committee to Consider a Code of Professional Conduct from January 2018 proposed that besides the AEA's efforts to increase diversity of the Executive Committee with respect to race and gender, "the AEA should consider the diversity of its committees and officers along dimensions including the range of academic departments, universities and colleges, and types of careers represented in nominations. This recommendation derives from the Committee's sense that some people perceive the AEA to be an elitist organization with its leadership drawn from a small part of the profession" (AEA 2018a).²⁶

A plausible explanation for the fact that no candidate has been directly nominated by petition in the history of the AEA is the high barrier of directly nominating candidates—6 percent of the membership for President-elect and 4 percent for other offices. That is over 800 members for the latter case. Minimizing barriers to electoral entry could increase diversity of candidates. For instance, the American Political Science Association, with more than 11,000 members (roughly half the size of the AEA), requires only 50 members.

To be clear, we take no stand on the normative issues and are not advocating reforms; rather we are pointing out the relevance of what we have learned to reforms that might be contemplated.

APPENDIX: ADDITIONAL TABLES AND FIGURES

TABLE A.1.AEA Standing Committees as of 2019

- Advisory Committee on Editorial Appointments¹
- Audit Committee
- Budget and Finance Committee
- Committee on Economic Education
- Committee on Economic Statistics
- · Committee on Equity, Diversity, and Professional Conduct
- Committee on Government Relations
- Committee on Honors and Awards²
- · Committee for Oversight of Operations and Publishing
- · Committee on the Status of LGBTQ+ Individuals in the Economics Profession
- · Committee on the Status of Minority Groups in the Economics Profession
- · Committee on the Status of Women in the Economics Profession
- Oversight Committee for Registry of Random Controlled Trials
- Task Force on Best Practices for Professional Conduct in Economics
- Task Force on Outreach to High School and Undergraduate Students in Economics

Notes: ¹Members are nonvoting ex officio on Executive Committee. ²Selects Distinguished Fellows and Clark Medalists.

Source: AEA website: https://www.aeaweb.org/about-aea/committees [accessed on December 4, 2019].

²⁶The final report forwarded the recommendations of the interim report to the Executive Committee for "serious consideration" without revision of its recommendations (AEA 2018b).

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InstitutionsEducationTierEmploymentTier1American University of Beirut1Third Tier3Amherst College2Third Tier4University of Anzona3Third Tier5University of Anzona3Third Tier6Arizona State University2Third Tier7Amstrong World Industries1Third Tier9University of Birmingham1Third Tier9University of Berlin10Third Tier10Board of Governors of the Federal Reserve System7Third Tier11Board of Governors of the Federal Reserve System7Third Tier12Boston College1Third Tier13Brandeis University3Third Tier14Brinmer & Co. Inc3Third Tier15University of British Columbia2Third Tier16Brookings Institution3Third Tier17Third Tier1Third Tier18Brown University6Third Tier19University of California, Berkeley (UC Berkeley)43Second Tier10University of California, Los Angeles (UCLA)7Third Tier12University of California, Los A				Education		Employment
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21California Institute of Technology1Third Tier22University of California, Irvine1Third Tier23University of California, Los Angeles (UCLA)7Third Tier37Second Tier24University of California, San Diego4Third Tier12Third Tier25University of Cambridge10Third Tier12Third Tier26Carnegie Mellon University8Third Tier9Third Tier27University of Chicago (Chicago)116First Tier74First Tier28City College of New York1Third Tier1Third Tier29City University of New York5Third Tier1Third Tier20Claremont Graduate University1Third Tier1Third Tier31Claremont McKenna College1Third Tier1Third Tier32University of Colorado, Boulder1Third Tier2Third Tier33Columbia University72First Tier34Second Tier34Committee for Economic Development1Third Tier1Third Tier35Conrell University13Third Tier10Third Tier36Cornell University2Third Tier22Second Tier35Date on the seton Economic Development2Third Tier3236Conrell University13Third Tier23Second Tier37Dun &	20	University of California, Davis			1	Third Tier
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25University of Cambridge10Third Tier26Carnegie Mellon University8Third Tier9Third Tier27University of Chicago (Chicago)116First Tier74First Tier28City College of New York1Third Tier1Third Tier29City University of New York5Third Tier30Claremont Graduate University1Third Tier1Third Tier31Claremont McKenna College1Third Tier2Third Tier32University of Colorado, Boulder1Third Tier34Second Tier33Columbia University72First Tier34Second Tier34Committee for Economic Development1Third Tier1Third Tier35Congressional Budget Office4Third Tier1Third Tier36Correll University13Third Tier10Third Tier37Dartmouth College6Third Tier2Second Tier38Duke University2Third Tier2Second Tier39Dun & Bradstreet2Third Tier2Second Tier39Dun & Bradstreet2Third Tier2Third Tier40Federal Reserve Bank of Boston2Third Tier1Third Tier41Federal Reserve Bank of Saint Louis1Third Tier1Third Tier44Federal Reserve Bank of Saint Louis1	24	University of California, San Diego	4	Third Tier	12	Third Tier
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29City University of New York5Third Tier30Claremont Graduate University1Third Tier1Third Tier31Claremont McKenna College1Third Tier1Third Tier32University of Colorado, Boulder1Third Tier2Third Tier33Columbia University72First Tier34Second Tier34Committee for Economic Development1Third Tier1Third Tier35Congressional Budget Office4Third Tier10Third Tier36Cornell University13Third Tier10Third Tier37Dartmouth College6Third Tier1Third Tier38Duke University2Third Tier22Second Tier39Dun & Bradstreet2Third Tier2Third Tier40Federal Reserve Bank of Boston2Third Tier1Third Tier41Federal Reserve Bank of Saint Louis1Third Tier1Third Tier44Federal Reserve Bank of San Francisco1Third Tier1Third Tier45Fisk University1Third Tier1Third Tier46Fordham University1Third Tier1Third Tier	28	City College of New York	1	Third Tier	1	Third Tier
30Claremont Graduate University1Third Tier1Third Tier31Claremont McKenna College1Third Tier1Third Tier32University of Colorado, Boulder1Third Tier2Third Tier33Columbia University72First Tier34Second Tier34Committee for Economic Development1Third Tier1Third Tier35Congressional Budget Office4Third Tier10Third Tier36Cornell University13Third Tier10Third Tier37Dartmouth College6Third Tier6Third Tier38Duke University2Third Tier22Second Tier39Dun & Bradstreet2Third Tier2Third Tier40Federal Reserve Bank of Boston2Third Tier1Third Tier41Federal Reserve Bank of Saint Louis1Third Tier1Third Tier44Federal Reserve Bank of San Francisco1Third Tier1Third Tier45Fisk University1Third Tier1Third Tier46Fordham University1Third Tier1Third Tier	29	City University of New York			5	Third Tier
31Claremont McKenna College1Third Tier32University of Colorado, Boulder1Third Tier2Third Tier33Columbia University72First Tier34Second Tier34Committee for Economic Development1Third Tier1Third Tier35Congressional Budget Office4Third Tier10Third Tier36Cornell University13Third Tier10Third Tier37Dartmouth College6Third Tier6Third Tier38Duke University2Third Tier22Second Tier39Dun & Bradstreet2Third Tier2Third Tier40Federal Reserve Bank of Boston2Third Tier1Third Tier41Federal Reserve Bank of Saint Louis1Third Tier1Third Tier44Federal Reserve Bank of San Francisco1Third Tier1Third Tier45Fisk University1Third Tier1Third Tier46Fordham University1Third Tier1Third Tier	30	Claremont Graduate University	1	Third Tier	1	Third Tier
32University of Colorado, Boulder1Third Tier2Third Tier33Columbia University72First Tier34Second Tier34Committee for Economic Development1Third Tier1Third Tier35Congressional Budget Office4Third Tier4Third Tier36Cornell University13Third Tier10Third Tier37Dartmouth College6Third Tier6Third Tier38Duke University2Third Tier22Second Tier39Dun & Bradstreet2Third Tier2Third Tier40Federal Reserve Bank of Boston2Third Tier2Third Tier41Federal Reserve Bank of New York1Third Tier1Third Tier42Federal Reserve Bank of Saint Louis1Third Tier1Third Tier44Federal Reserve Bank of San Francisco1Third Tier1Third Tier45Fisk University1Third Tier1Third Tier46Fordham University1Third Tier1Third Tier	31	Claremont McKenna College			1	Third Tier
33Columbia University72First Tier34Second Tier34Committee for Economic Development1Third Tier35Congressional Budget Office4Third Tier36Cornell University13Third Tier10Third Tier37Dartmouth College6Third Tier38Duke University2Third Tier22Second Tier39Dun & Bradstreet2Third Tier2Third Tier40Federal Reserve Bank of Boston2Third Tier1Third Tier41Federal Reserve Board of New York1Third Tier4Federal Reserve Bank of Saint Louis1Third Tier43Federal Reserve Bank of San Francisco1Third Tier4Third Tier44Federal Reserve Bank of San Francisco1Third Tier45Fisk University1Third Tier146Fordham University1Third Tier	32	University of Colorado, Boulder	1	Third Tier	2	Third Tier
34Committee for Economic Development1Third Tier35Congressional Budget Office4Third Tier36Cornell University13Third Tier10Third Tier37Dartmouth College6Third Tier6Third Tier38Duke University2Third Tier22Second Tier39Dun & Bradstreet2Third Tier2Third Tier40Federal Reserve Bank of Boston2Third Tier1Third Tier41Federal Reserve Board of New York1Third Tier1Third Tier42Federal Reserve Bank of Saint Louis1Third Tier1Third Tier43Federal Reserve Bank of San Francisco1Third Tier1Third Tier44Federal Reserve Bank of San Francisco1Third Tier1Third Tier45Fisk University1Third Tier1Third Tier46Fordham University1Third Tier1Third Tier	33	Columbia University	72	First Tier	34	Second Tier
35Congressional Budget Office4Third Tier36Cornell University13Third Tier10Third Tier37Dartmouth College6Third Tier638Duke University2Third Tier22Second Tier39Dun & Bradstreet2Third Tier2Third Tier40Federal Reserve Bank of Boston2Third Tier1Third Tier41Federal Reserve Board of New York1Third Tier1Third Tier42Federal Reserve Bank of Saint Louis1Third Tier1Third Tier43Federal Reserve Bank of San Francisco1Third Tier1Third Tier44Federal Reserve Bank of San Francisco1Third Tier1Third Tier45Fisk University1Third Tier1Third Tier46Fordham University1Third Tier1Third Tier	34	Committee for Economic Development			1	Third Tier
36Cornell University13Third Tier10Third Tier37Dartmouth College6Third Tier38Duke University2Third Tier22Second Tier39Dun & Bradstreet2Third Tier2Third Tier40Federal Reserve Bank of Boston2Third Tier1Third Tier41Federal Reserve Board of New York1Third Tier1Third Tier42Federal Reserve Bank of Saint Louis1Third Tier1Third Tier43Federal Reserve Bank of San Francisco1Third Tier1Third Tier44Federal Reserve Bank of San Francisco1Third Tier1Third Tier45Fisk University1Third Tier1Third Tier46Fordham University1Third Tier1Third Tier	35	Congressional Budget Office			4	Third Tier
37Dartmouth College6Third Tier38Duke University2Third Tier22Second Tier39Dun & Bradstreet2Third Tier2Third Tier40Federal Reserve Bank of Boston2Third Tier2Third Tier41Federal Reserve Board of New York1Third Tier1Third Tier42Federal Reserve Bank of Philadelphia1Third Tier1Third Tier43Federal Reserve Bank of Saint Louis1Third Tier1Third Tier44Federal Reserve Bank of San Francisco1Third Tier1Third Tier45Fisk University1Third Tier1Third Tier46Fordham University1Third Tier1Third Tier	36	Cornell University	13	Third Tier	10	Third Tier
38Duke University2Third Tier22Second Tier39Dun & Bradstreet2Third Tier2Third Tier40Federal Reserve Bank of Boston2Third Tier241Federal Reserve Board of New York1Third Tier42Federal Reserve Bank of Philadelphia1Third Tier43Federal Reserve Bank of Saint Louis1Third Tier44Federal Reserve Bank of San Francisco1Third Tier45Fisk University1Third Tier46Fordham University1Third Tier	37	Dartmouth College			6	Third Tier
39Dun & Bradstreet2Third Tier40Federal Reserve Bank of Boston2Third Tier41Federal Reserve Board of New York1Third Tier42Federal Reserve Bank of Philadelphia1Third Tier43Federal Reserve Bank of Saint Louis1Third Tier44Federal Reserve Bank of San Francisco1Third Tier45Fisk University1Third Tier46Fordham University1Third Tier	38	Duke University	2	Third Tier	22	Second Tier
40Federal Reserve Bank of Boston2Third Tier41Federal Reserve Board of New York1Third Tier42Federal Reserve Bank of Philadelphia1Third Tier43Federal Reserve Bank of Saint Louis1Third Tier44Federal Reserve Bank of San Francisco1Third Tier45Fisk University1Third Tier46Fordham University1Third Tier	39	Dun & Bradstreet			2	Third Tier
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42Federal Reserve Bank of Philadelphia1Third Tier43Federal Reserve Bank of Saint Louis1Third Tier44Federal Reserve Bank of San Francisco1Third Tier45Fisk University1Third Tier46Fordham University1Third Tier	41	Federal Reserve Board of New York			1	Third Tier
43Federal Reserve Bank of Saint Louis1Third Tier44Federal Reserve Bank of San Francisco1Third Tier45Fisk University1Third Tier46Fordham University1Third Tier	42	Federal Reserve Bank of Philadelphia			1	Third Tier
44Federal Reserve Bank of San Francisco1Third Tier45Fisk University1Third Tier46Fordham University1Third Tier	43	Federal Reserve Bank of Saint Louis			1	Third Tier
45 Fisk University1Third Tier46 Fordham University1Third Tier	44	Federal Reserve Bank of San Francisco			1	Third Tier
46 Fordham University 1 Third Tier	45	Fisk University			1	Third Tier
,	46	Fordham University			1	Third Tier

TABLE A.2 Institutions Included in the Data Set

(Continued)

			Number of	Positions by:	
			Education		Employment
	Institutions	Education	Tier	Employment	Tier
47	University of Freiburg	3	Third Tier		
48	George Washington University			2	Third Tier
49	Georgetown University			4	Third Tier
50	Google			1	Third Tier
51	Grinnell College			1	Third Tier
52	Harvard University	234	First Tier	103	First Tier
53	Haverford College			1	Third Tier
54	University of Heidelberg	2	Third Tier		
55	University of Houston			1	Third Tier
56	University of Illinois, Urbana–Champaign	1	Third Tier	8	Third Tier
57	Indiana University			1	Third Tier
58	Institute for Advanced Study			2	Third Tier
59	Institute of Public Administration			1	Third Tier
60	International Monetary Fund			2	Third Tier
61	University of Iowa	5	Third Tier	3	Third Tier
62	Iowa State University	4	Third Tier	1	Third Tier
63	Jackson State University			1	Third Tier
64	Johns Hopkins University	18	Third Tier	12	Third Tier
65	Lawrence University			2	Third Tier
66	Lehman Brothers			1	Third Tier
67	University of Leiden	2	Third Tier		
68	Litton Industries			1	Third Tier
69	London School of Economics (LSE)	22	Second Tier	2	Third Tier
70	Louisiana State University			2	Third Tier
71	Machinery and Allied Products Institute			2	Third Tier
72	University of Maine			1	Third Tier
73	University of Manitoba	2	Third Tier		
74	University of Maryland	6	Third Tier	22	Second Tier
75	University of Massachusetts	2	Third Tier	8	Third Tier
76	Massachusetts Institute of Technology (MIT)	159	First Tier	76	First Tier
77	University of Michigan (Michigan)	21	Second Tier	21	Second Tier
78	Michigan State University			5	Third Tier
79	Microsoft			1	Third Tier
80	University of Minnesota (Minnesota)	20	Second Tier	27	Second Tier
81	University of Missouri	2	Third Tier		
82	Monsanto Company			1	Third Tier
83	Monthly Review			2	Third Tier
84	Mount Holyoke College			1	Third Tier
85	National Bureau of Economic Research (NBER)			4	Third Tier
86	National Industrial Conference Board			1	Third Tier
87	National Planning Association			1	Third Tier
88	New School for Social Research	7	Third Tier	5	Third Tier
89	University of New Mexico			1	Third Tier
90	New York University	2	Third Tier	16	Third Tier
91	University of New Zealand	1	Third Tier		

TABLE A.2 Institutions Included in the Data Set (Continued)

			Number of	f Positions by:	
	Institutions	Education	Education Tier	Employment	Employment Tier
92	University of North Carolina Chapel Hill	2	Third Tier	9	Third Tier
93	Northwestern University	12	Third Tier	29	Second Tier
94	Oakland University			1	Third Tier
95	Oberlin College			4	Third Tier
96	Ohio State University	6	Third Tier		
97	Oklahoma State University	1	Third Tier		
98	University of Oregon			1	Third Tier
99	University of Oxford	22	Second Tier		
100	University of Paris	5	Third Tier		
101	University of Pennsylvania	21	Second Tier	29	Second Tier
102	Pennsylvania Mutual Life Insurance Company			1	Third Tier
103	Pennsylvania State University	1	Third Tier	2	Third Tier
104	Peterson Institute for International Economics			1	Third Tier
105	University of Pittsburgh	2	Third Tier	2	Third Tier
106	Princeton University	50	Second Tier	64	First Tier
107	Purdue University	3	Third Tier		
108	Queen's University	1	Third Tier	3	Third Tier
109	RAND Corporation			3	Third Tier
110	Rice University	3	Third Tier	1	Third Tier
111	University of Rochester	7	Third Tier	11	Third Tier
112	Rockefeller Foundation			2	Third Tier
113	Rutgers University			1	Third Tier
114	University of Saskatchewan			1	Third Tier
115	Smith College			1	Third Tier
116	University of Southern California			4	Third Tier
117	Southern Methodist University			1	Third Tier
118	Swarthmore College	1	Third Tier	8	Third Tier
119	Stanford University	60	First Tier	83	First Tier
120	State University of New York at Albany			1	Third Tier
121	State University of New York at Binghamton	1	Third Tier		
122	State University of New York at Stony Brook			1	Third Tier
123	Stevens Institute of Technology	4	Third Tier		
124	Swift & Company			1	Third Tier
125	Syracuse University	1	Third Tier		
126	Tariff Board of Canada			1	Third Tier
127	University of Texas			9	Third Tier
128	Texas A&M University			3	Third Tier
129	University of Toronto	2	Third Tier	8	Third Tier
130	University of Trieste	2	Third Tier		
131	The Urban Institute			3	Third Tier
132	Tufts University	2	Third Tier		
133	Tulane University			1	Third Tier
134	United Nations			1	Third Tier
135	University College London (UCL)	1	Third Tier		
136	US Bureau of the Budget			2	Third Tier

TABLE A.2 Institutions Included in the Data Set (Continued)

(Continued)

		Number of Positions by:						
			Education		Employment			
	Institutions	Education	Tier	Employment	Tier			
137	US Bureau of Labor Statistics			2	Third Tier			
138	US Civil Aeronautics Board			1	Third Tier			
139	US Department of Agriculture			1	Third Tier			
140	US Department of Commerce			1	Third Tier			
141	US Department of Defense			1	Third Tier			
142	US Department of Labor			7	Third Tier			
143	US Federal Trade Commission			1	Third Tier			
144	Vanderbilt University	3	Third Tier	9	Third Tier			
145	Vassar College			1	Third Tier			
146	University of Vienna	9	Third Tier					
147	University of Virginia			4	Third Tier			
148	Virginia Polytechnic Institute			2	Third Tier			
149	Warsaw University	3	Third Tier					
150	University of Washington	1	Third Tier	6	Third Tier			
151	Washington University in St. Louis			4	Third Tier			
152	Wayne State University			5	Third Tier			
153	Wellesley College			3	Third Tier			
154	Wesleyan University			6	Third Tier			
155	Williams College			1	Third Tier			
156	University of Wisconsin, Madison	36	Second Tier	18	Third Tier			
157	World Bank			1	Third Tier			
158	Yale University	46	Second Tier	55	Second Tier			
	Total	1,122		1,123				

TABLE A.2 Institutions included in the Data Set (Continued)

						Education	ı				
		1950-84			1985-2019				1950-2019		
Institutional Group	Number	Share (percent)	Academic Age		Number	Share (percent)	Academic Age	-	Number	Share (percent)	Academic Age
Тор б	178	56.2	19.8		171	66.8	22.0		349	60.9	20.9
Second Tier	69	21.8	21.6		48	18.8	24.5		117	20.4	22.8
Third Tier	70	22.1	22.8		37	14.5	25.7		107	18.7	23.8
Total/Average	317	100.0	20.9		256	100.0	23.0		573	100.0	21.8

TABLE A.3 Average Academic Age to First Leadership Position

		Employment									
		1950-84			1985-201	9		1950-2019			
Institutional Group	Number	Share (percent)	Academic Age	Number	Share (percent)	Academic Age	Number	Share (percent)	Academic Age		
Тор б	83	25.2	23.7	96	37.5	21.5	179	31.2	22.5		
Second Tier	80	26.2	20.3	68	26.6	22.4	148	25.8	21.3		
Third Tier	154	48.6	19.6	92	35.9	25.0	24.6	42.9	21.7		
Total/Average	317	100.0	20.9	256	100.0	23.0	573	100.0	21.8		

Notes: See main text table 2 for category definitions. Sums of shares may differ from 100 percent owing to rounding.

TABLE A.4

Distribution of Positions in the Electoral Pool Among Institutional Groups and Individuals by $E_{\rm DUCATION}$

			1950–198	4	
	Positions	Share of all positions (percent)	Distinct individuals	Share of all individuals (percent)	Positions per distinct individual in period
Тор б	292	54.5	178	56.2	1.6
Second Tier	129	24.1	70	22.1	1.8
Third Tier	115	21.5	70	22.1	1.6
Total/Average	536	100.0	317	100.0	1.7
			1985–201	9	
Top 6	400	68.0	208	65.8	1.9
Second Tier	101	17.2	59	18.7	1.7
Third Tier	87	14.8	49	15.5	1.8
Total/Average	588	100.0	316	100.0	1.9

Notes: See main text table 2 for category definitions. Sums of shares may differ from 100 percent owing to rounding.

		Emple	OYMENT		
			1950-84	ļ	
	Positions	Share of all positions (percent)	Distinct individuals	Share of all individuals (percent)	Positions per distinct individual in period
Top 6	168	31.3	87	27.4	1.9
Second Tier	147	27.4	86	27.1	1.7
Third Tier	221	41.2	159	50.2	1.4
Total/Average	536	100.0	317	100.0	1.7
			1985–201	.9	
Top 6	266	45.2	123	38.9	2.2
Second Tier	158	26.9	89	28.2	1.8
Third Tier	164	27.9	123	38.9	1.3
Total/Average	588	100.0	316	100.0	1.9

TABLE A.5 Distribution of Positions in the Electoral Pool Among Institutional Groups and Individuals by Employment

Notes: See main text table 2 for category definitions. Numbers of distinct individuals and shares in tiers do not sum to totals as some individuals are counted in more than one tier.

	A	CADEMIC	TA Age to I	BLE A Presi	4.6 denti	AL ELECI	TON					
		Education										
		1950–84 1985–2019							1950-2019			
Institutional Group	Number	Share (percent)	Academic Age	-	Number	Share (percent)	Academic Age	_	Number	Share (percent)	Academic Age	
Top 6 Other Tiers	16 19	45.7 54.3	29.8 35.3		24 11	68.6 31.4	40.5 39.6		40 30	57.1 42.9	36.2 36.9	
Grand Total	35	100.0	32.7		35	100.0	40.3		70	100.0	36.5	
					1	Employme	nt					
		1950-84				1985–201	9		1950-2019			
Institutional Group	Number	Share (percent)	Academic Age	-	Number	Share (percent)	Academic Age	_	Number	Share (percent)	Academic Age	
Top 6 Other Tier	19 16	54.3 45.7	32.6 32.9		22 13	62.9 37.1	40.1 40.5		41 29	58.6 41.4	36.6 36.3	
Grand Total	35	100.0	32.7		35	100.0	40.3		70	100.0	36.5	

Notes: See main text table 2 for category definitions. Sums of shares may differ from 100 percent owing to rounding.

	Education									
		First Position		President						
Institutional Group	Number	Share (percent)	Years	Number	Share (percent)	Years				
Top 6 Other Tiers	27 15	64.3 35.7	$-20.1 \\ -15.4$	18 9	66.7 33.3	$-5.1 \\ 0.7$				
Total/Average	42	100.0	-18.5	27	100.0	-3.2				
	Employment									
		President								
Institutional Group	Number	Share (percent)	Years	Number	Share (percent)	Years				
Тор б	24	57.1	-17.0	16	59.3	-2.9				
Other Tiers	18	42.9	-20.4	11	40.7	-3.6				
Total/Average	42	100.0	-18.5	27	100.0	-3.2				

TABLE A.7. Years from Nobel Prize to Leadership Position

Notes: Only US-based Nobelists are included. Only the period 1969–2019 is considered. See main text table 2 for category definitions.

Sources: Authors' dataset and biographical information on non-AEA Nobel Prize winners.



Figure A.1. Production of Economics Doctorates in the United States, 1905–2017

Source: AEA, National Center for Educational Statistics (2018) Digest of Educational Statistics (1950-2017)



Figure A.2. New Economics PhDs in the United States Shares of Annual (percent of total)

Note: See main text table 2 for category definitions.

Source: National Science Foundation (2019) *Survey of Earned Doctorates.* The remaining PhDs graduated from third-tier universities.



Figure A.3. Shares of Electoral Pool by Education and Employment at the Same Institution (10-year Moving Average)

Note: See main text table 2 for category definitions.

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